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# **A Future Arms Control Agenda**

**Proceedings of Nobel Symposium 118, 1999**

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*Edited by*

Ian Anthony and Adam Daniel Rotfeld

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# Contents

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<i>Preface</i>	xiii
<i>Acronyms</i>	xv
<b>Introduction</b>	
<b>1. The future of arms control and international security</b>	3
<i>Adam Daniel Rotfeld</i>	
I. Introduction	3
II. Arms control: a new scope, new goals Different approaches to arms control	4
III. Current problems and new challenges The central problems of arms control today—The challenges of the post-cold war period	7
IV. From deterrence to regulation	10
V. New priorities	11
<b>Part I. The security environment and arms control</b>	
<b>2. Arms control: an endangered species in the new security environment?</b>	17
<i>Alyson J. K. Bailes</i>	
I. Introduction	17
II. Four contemporary trends in arms control	18
III. Conclusion	20
<b>3. A security strategy for the 21st century</b>	22
<i>William J. Perry</i>	
I. Introduction	22
II. Prevention of war	23
III. Major crises and potential threats	25
IV. Conclusion	29
<b>4. Observations on arms control in a new security environment</b>	30
<i>Anders Bjurner</i>	
I. Introduction	30
II. Old and new challenges	30
III. Towards a comprehensive and global non-proliferation regime	32
IV. A new agenda	33
<b>5. Objective and limits of arms control in the new security environment</b>	36
<i>Vladimir Baranovsky</i>	
I. Introduction	36
II. The nuclear dimension	37
III. The regional dimension	40
IV. Moving towards international regulation	41
<b>6. Good guys, bad guys and arms control</b>	43
<i>Richard N. Perle</i>	
I. Introduction	43
II. The cold war period	44

III. The post-cold war period	46
Bilateral arms control—Multilateral arms control	
IV. The new role of arms control	49
<b>Part II. The role of major powers</b>	
<b>7. Major powers and arms control: a Russian perspective</b>	55
<i>Yuri K. Nazarkin</i>	
I. Which states are ‘major powers’ today?	55
II. Assessments of arms control today	56
III. Non-proliferation	59
IV. Bilateral arms control	60
START III and the ABM Treaty	
V. Multilateral nuclear arms control	63
VI. Conclusion	64
<b>8. Major powers and arms control: a US perspective</b>	65
<i>James E. Goodby</i>	
I. Introduction	65
II. A stable peace and equilibrium	67
III. The present relevance of arms control	68
IV. The priority task of the major powers	69
V. Russian–US nuclear relations	70
VI. New nuclear problems in Asia	71
VII. Responding to the ‘new medievalism’	73
VIII. Conclusion	74
<b>9. Major powers and arms control: a Chinese perspective</b>	75
<i>Li Changhe</i>	
I. Introduction	75
II. The arms control and security policies of great powers	75
III. The agenda ahead	77
IV. China’s approach	78
<b>10. Major powers and arms control: a Japanese perspective</b>	81
<i>Hisashi Owada</i>	
I. Introduction	81
II. Nuclear non-proliferation and disarmament	82
III. Response to the nuclear tests by India and Pakistan	84
IV. Regional issues of global implications	85
V. Conclusion	87
<b>11. Towards a cooperative arms control regime</b>	89
<i>Sergey Rogov</i>	
I. Introduction	89
The mutual deterrence paradigm—The system of strategic stability	
II. New challenges for arms control	91
Managing a polycentric world—New approaches—The Revolution in Military Affairs	
III. The last stage of mutual nuclear deterrence?	94
New parameters for the Russian–US arms control regime	
IV. Beyond arms control	99

## Part III. Arms control in transition: in search of a new organizing principle

<b>12. The future arms control agenda: escaping the prison of the past</b>	103
<i>Terence Taylor</i>	
I. Introduction	103
II. Revival of arms control	103
III. The economic incentives and a verification challenge	105
IV. What kind of verification measures?	107
V. Conclusion	109
<b>13. Transition from balance of power to a cooperative system</b>	110
<i>David Ivry</i>	
I. Introduction	110
The cold war—The post-cold war period	
II. Voluntary cooperative arms control	112
III. Surface-to-surface missiles	113
IV. Proposals	114
V. Conclusion	115
<b>14. Arms control in transition: building a new security order</b>	116
<i>Carlo Jean</i>	
I. Introduction	116
II. A new geopolitical framework for arms control	116
III. Consolidation of arms control achievements during the cold war	118
IV. From ‘hard’ to ‘broad’ and from ‘confrontational’ to ‘cooperative’ approaches to security	120
V. Subregional versus regional arms control	122
VI. Conclusion	125
<b>15. Structural and cultural challenges to arms control in intra-state and post-conflict environments</b>	127
<i>Keith Krause</i>	
I. Introduction	127
II. The Western ‘arms control paradigm’	129
III. Structural constraints on exporting arms control practices to post-conflict and sub-state contexts	130
‘Winner takes all’ perceptions and the legacy of conflict—Inability to establish a stable deterrent—Inapplicability of ideas of balance or parity—Low political legitimacy makes confidence and security building impossible	
IV. Cross-cultural dimensions of new arms control challenges	133
Orientations towards regional and multilateral relations—Concepts of negotiation and diplomacy—Domestic political cultural norms—The place of violence and norms of conflict resolution	
V. Conclusion	137
<b>16. Arms control as a conflict management tool</b>	140
<i>Nicole Ball</i>	
I. Introduction	140
II. Characteristics of the security sector following civil wars	142
III. Peace agreements and the security sector	143
IV. Arms control in post-civil war environments	144

<b>17. Arms control and peace settlements and the challenges of sub-state activities</b>	150
<i>Leonard T. Kapungu</i>	
I. Introduction	150
II. Disarmament, demobilization and reintegration processes	150
III. Peace processes	151
IV. The failure of the peace terms	152
V. Some case studies	153
VI. Lessons learned	156
<b>18. Transparency and verification: a Swedish perspective</b>	158
<i>Staffan Sohlman</i>	
I. Introduction	158
II. The Wassenaar Arrangement	159
III. Conclusion	160
<b>19. Arms export controls</b>	161
<i>Ian Anthony</i>	
I. Introduction	161
II. The content and organization of export control discussions	163
The role of the United States	
III. Arms control and export control: convergence or divergence?	168
 <b>Part IV. Compliance with arms control commitments</b>	
<b>20. Arms control in a world of cheating: transparency and non-compliance in the post-cold war era</b>	173
<i>Steven E. Miller</i>	
I. Introduction	173
II. Will cheating happen? (or, the propensity to comply)	175
III. Can cheating be detected? (or, systems of verification)	177
IV. Is all cheating the same? (or, varieties of non-compliance)	181
V. Does cheating matter? (or, living with non-compliance)	183
VI. The end of the cold war and the limits of verification	186
<b>21. Compliance or non-compliance with arms control and disarmament</b>	190
<i>Rolf Ekéus</i>	
I. Introduction	190
II. Chemical weapons	191
III. Biological weapons	192
IV. Nuclear weapon proliferation	193
V. The obligations of the nuclear weapon states	195
VI. Delivery systems	196
VII. The UN Security Council and compliance	196
<b>22. Transparency, verification and safeguards</b>	199
<i>Thérèse Delpech</i>	
I. Introduction	199
II. Transparency in the post-cold war era	200
The political dimension: openness and resistance to it—The technical dimension: transparency and deception	
III. Transparency and verification: their complementarity	203
IV. Nuclear safeguards: the least imperfect tool?	205
V. Some priorities	206
VI. Conclusion	207



<b>23. Verification of compliance</b>	209
<i>Andrzej Karkoszka</i>	
I. The legacy of the cold war	209
II. Breakthrough in verification of disarmament	211
III. Lessons of the past	211
IV. Problems ahead	215
V. Conclusion	220
<b>24. Compliance and non-compliance with treaties: inducements and coercion in the arms control process</b>	222
<i>István Gyarmati</i>	
I. Introduction	222
II. The CFE Treaty	222
III. Conclusion	226
<b>25. Conventional arms control agreements: issues of compliance</b>	228
<i>Zdzisław Lachowski</i>	
I. Introduction	228
II. Circumvention of the CFE Treaty	228
III. Reduction non-compliance	229
IV. The flank dispute	231
V. The conflict in Chechnya and CFE compliance	232
VI. Unwanted/unlawful presence of foreign armed forces	233
VII. CSBMs and the new security environment	235
VIII. ‘Suspension’ of agreement implementation	237
IX. Conclusion	238
 <b>Part V. The SIPRI Arms Control Survey</b>	
<b>26. Conventional arms control in Europe</b>	243
<i>Zdzisław Lachowski</i>	
I. Introduction	243
II. The CFE Treaty	243
The main elements of the treaty—Implementation of the treaty—	
Implementation of the CFE-1A Agreement—Verification—The flank issue—	
Towards the adapted CFE Treaty—The main elements of the adapted CFE	
Treaty—The new structure of limitations—The flank issue revisited—	
Accommodation in Central Europe—Host nation consent—Enhanced	
transparency	
III. Regional arms control in Europe	259
The Florence Agreement—The Train and Equip programme—The status of	
implementation—Towards regional stability	
Table 26.1. CFE-1A Agreement ceilings and manpower holdings, 1990–2000	246
Table 26.2. Changes in the Russian and Ukrainian entitlements in the former flank zone	248
and the redefined flank zone	
Table 26.3. Agreed levels for the national ceilings, sub-ceilings for active units and	250
sub-ceiling categories	
Table 26.4. Agreed levels for the territorial ceilings and territorial sub-ceilings	251
Table 26.5. National CFE limits under the 1990 CFE Treaty and the 1999 Agreement	252
on Adaptation	
Table 26.6. CFE limits and holdings, 1990–2000	253

Table 26.7. Limitations on holdings and manpower and maximum agreed numbers for armoured infantry fighting vehicles of the five parties to the Florence Agreement	260
Table 26.8. Reductions completed under the Florence Agreement, as of 31 October 1997	261
<b>27. Anti-personnel mines</b>	267
<i>Zdzislaw Lachowski</i>	
I. The CCW Convention and amended Protocol II	267
II. The Ottawa Process	268
The main provisions of the APM Convention—Entry into force of the APM Convention—Landmine Monitor	
III. The Conference on Disarmament	271
Table 27.1. The status of the APM Convention, as of 1 December 2000	268
<b>28. Nuclear arms control and non-proliferation</b>	273
<i>Shannon N. Kile</i>	
I. Introduction	273
II. The START treaties	273
The START I Treaty—The START II Treaty—A START III treaty	
III. The Anti-Ballistic Missile Treaty	279
Treaty provisions—The ABM Treaty and national missile defence—The ABM Treaty and theatre missile defence	
IV. The Cooperative Threat Reduction programme	286
MPC&A activities—Defence conversion efforts—The Highly Enriched Uranium Agreement	
V. The Non-Proliferation Treaty	289
Treaty provisions—Evolution of the NPT—The 2000 NPT Review Conference	
VI. The North Korean–US Agreed Framework	292
VII. The Comprehensive Nuclear Test-Ban Treaty	293
Treaty provisions—Status of the treaty	
VIII. The Fissile Material Cut-off Treaty	297
Obstacles to negotiating a fissile material ban	
IX. Nuclear weapon-free zones	299
X. Conclusion	300
Table 28.1. Select START I interim and final ceilings, 1997–2001	274
Table 28.2. START I aggregate numbers of strategic nuclear delivery vehicles and accountable warheads, as of 1 July 2000	276
Table 28.3. START II interim and final ceilings, 2004–2007	277
Table 28.4. Estimated number of nuclear tests, 1945–98	294
Table 28.5. Status of CTBT ratification, 44 states listed in Annexe 2 of the treaty, as of 1 October 2000	296
Table 28.6. Estimated inventories of weapon-grade plutonium and uranium in the NPT-defined nuclear weapon states, as of 31 December 1994	298
Table 28.7. Estimated inventories of weapon-grade plutonium and uranium in the de facto nuclear weapon states, produced for nuclear weapon purposes, as of 31 December 1994	299
Table 28.8. Summary of the nuclear weapon-free zone treaties, as of 1 January 1999	300
<b>29. The elimination of chemical and biological weapons</b>	302
<i>Jean Pascal Zanders</i>	
I. Introduction	302
II. The Chemical Weapons Convention	303
III. The Biological and Toxin Weapons Convention	307

IV. The elimination of CBW in Iraq	310
Table 29.1. Chemical weapons in Iraq, as of January 1999	312
Table 29.2. Biological weapons in Iraq, as of January 1999	314
<b>30. Arms control and disarmament agreements</b>	<b>318</b>
<i>Ragnhild Ferm</i>	
1925 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (Geneva Protocol)	319
1948 Treaty for the Collaboration in Economic, Social and Cultural Matters and for Collective Self-defence among Western European states (Brussels Treaty)	319
1948 Convention on the Prevention and Punishment of the Crime of Genocide (Genocide Convention)	320
1949 Geneva Convention IV Relative to the Protection of Civilian Persons in Time of War	320
1954 Protocols to the 1948 Brussels Treaty (Paris Agreements on the Western European Union)	321
1959 Antarctic Treaty	321
1963 Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (Partial Test Ban Treaty, PTBT)	322
1967 Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Outer Space Treaty)	322
1967 Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco)	323
1968 Treaty on the Non-proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT)	325
1971 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil thereof (Seabed Treaty)	326
1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (Biological and Toxin Weapons Convention, BTWC)	327
1972 Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty)	328
1974 Treaty on the Limitation of Underground Nuclear Weapon Tests (Threshold Test Ban Treaty, TTBT)	329
1976 Treaty on Underground Nuclear Explosions for Peaceful Purposes (Peaceful Nuclear Explosions Treaty, PNET)	329
1977 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (Enmod Convention)	329
1977 Protocol I Additional to the 1949 Geneva Conventions, and Relating to the Protection of Victims of International Armed Conflicts	330
1977 Protocol II Additional to the 1949 Geneva Conventions, and Relating to the Protection of Victims of Non-International Armed Conflicts	330
1980 Convention on the Physical Protection of Nuclear Material	330
1981 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be Deemed to be Excessively Injurious or to have Indiscriminate Effects (CCW Convention, or 'Inhumane Weapons' Convention)	331
1985 South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga)	332
1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty)	333

1990	Treaty on Conventional Armed Forces in Europe (CFE Treaty)	333
1992	Concluding Act of the Negotiation on Personnel Strength of Conventional Armed Forces in Europe (CFE-1A Agreement)	334
1990	Vienna Documents 1990, 1992, 1994 and 1999 on Confidence- and Security-Building Measures	334
1991	Treaty on the Reduction and Limitation of Strategic Offensive Arms (START I Treaty)	334
1992	Treaty on Open Skies	335
1993	Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II Treaty)	335
1993	Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention, CWC)	336
1995	Treaty on the Southeast Asia Nuclear Weapon-Free Zone (Treaty of Bangkok)	336
1996	Agreement on Confidence- and Security-Building Measures in Bosnia and Herzegovina	337
1996	African Nuclear-Weapon-Free Zone Treaty (Treaty of Pelindaba)	337
1996	Agreement on Sub-Regional Arms Control (Florence Agreement)	339
1996	Comprehensive Nuclear Test-Ban Treaty (CTBT)	339
1997	Joint Statement on Parameters on Future Reductions in Nuclear Forces	340
1997	Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (APM Convention)	340

## Annexes

<b>Annexe A. Documents of the Nobel Symposium</b>	343
Programme of the 1999 Nobel Symposium on A Future Arms Control Agenda	343
Summary of the discussions of the Nobel Symposium	344
I. Introduction	344
II. The security environment and arms control	344
New elements in the international system—The objectives and roles of arms control	
III. A comprehensive approach to arms control and disarmament	349
The role of the major powers in the arms control process—Non-compliance and the enforcement of international arms control treaties—Peace settlement and the challenge of sub-state actors	
IV. Arms control transparency and verification	352
The role of transparency and confidence-building measures—The limits of verification in the arms control process	
V. The future of arms control and disarmament	354
List of the participants of the Nobel Symposium on A Future Arms Control Agenda	355
<b>Annexe B. The Stockholm Agenda for Arms Control</b>	359
I. Introduction	359
II. Objectives for the Stockholm Agenda for Arms Control	360
III. The main approach to achieving the objectives	365
<b>About the contributors</b>	367

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## Preface

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The purpose of this volume is to make a concrete contribution to the debate on a future agenda for arms control that has been carried out in recent years. The book contains the proceedings of the Nobel Symposium on A Future Arms Control Agenda, held on 1–2 October 1999, and the SIPRI Arms Control Survey. It is supplemented with the SIPRI report *The Stockholm Agenda for Arms Control*.

The idea of elaborating such an arms control agenda came from the late Frank Blackaby, SIPRI Director in 1981–86. At the discussion of the panel of former SIPRI directors held at SIPRI's 30th Anniversary Conference, Frank proposed that SIPRI undertake and publish a Comprehensive World Arms Control and Disarmament Overview. In a letter addressed to me after the conference he wrote: 'This is very badly needed, and SIPRI is the ideal institute to do it'. Inspired by Frank's words, SIPRI applied to the Nobel Foundation for a grant in order to convene a meeting of prominent researchers, scientists and practitioners in the field of international relations from more than 20 countries and representatives of various national and multilateral security organizations. The papers they produced for the symposium provide an overview of an arms control agenda, with suggestions for ways in which progress in arms control could be renewed. Our intention was to focus on how international political relations could be demilitarized. The major underlying assumption in defining a new agenda was that arms control should not be seen as an artificial process in which producing agreements would be a value per se. Rather, a new agenda should constitute one of the instruments for establishing a new cooperative security order.

The present volume consists of five parts, the first four of which reflect the organization of the symposium discussions: I. The security environment and arms control, II. The role of major powers, III. Arms control in transition: in search of a new organizing principle and IV. Compliance with arms control commitments. Parts I–IV contain the papers presented at or commissioned for the symposium in 1999; a number of them have been updated to reflect developments in 2000. They contain extensive references to arms control and disarmament agreements, the full titles and brief summaries of which are presented in chapter 30, Part V. It should be noted that all the papers published in this volume reflect the authors' own views and do not necessarily represent the views of any organization or institute with which they are or have been affiliated.

Part V, the SIPRI Arms Control Survey, was prepared by a group of SIPRI researchers—Ragnhild Ferm, Shannon Kile, Zdzislaw Lachowski and Jean Pascal Zanders. Some of the findings of the symposium are reflected in *The Stockholm Agenda for Arms Control*, a report prepared by Ian Anthony, rapporteur of the symposium. The draft of this report was discussed with the

members of the International Programme Committee, and all the participants of the symposium were consulted. The report was presented to numerous heads of states represented in the Conference on Disarmament; to the heads of mission accredited by NATO, the European Union, and the Organization for Security and Co-operation in Europe; and to the United Nations missions. The results of the Nobel Symposium were also presented at a panel discussion hosted by the UN Department for Disarmament Affairs and SIPRI on Arms Control and Disarmament: A New Conceptual Approach, held at the United Nations on 1 May 2000.

In his introduction to that panel discussion, Jayantha Dhanapala, UN Under-Secretary-General for Disarmament Affairs, noted that the Nobel Symposium and its report had 'made a significant contribution to the intellectual and political debate on the subject in the light of the new world security environment'. In his view, the publication of the ideas and proposals presented at the Nobel Symposium brainstorming sessions will help sustain long-term thinking in the next century. In a letter addressed to me, NATO Secretary General Lord Robertson welcomed 'the specific suggestions included in The Stockholm Agenda for Arms Control on revitalizing the institutional framework for making and implementing arms control policies. . . . Your Report on the Nobel Symposium constitutes a very useful contribution to ongoing discussions on this important matter'. The results of the symposium have since then been translated into several languages and received with interest by numerous politicians and practitioners in foreign affairs.

I would like to express my gratitude to the members of the International Programme Committee of the Nobel Symposium: Dr Ian Anthony (UK), Dr Hans Blix (Sweden), Professor Bo Huldt (Sweden), Dr Catherine Kelleher (USA), Dr Sverre Lodgaard (Norway), Professor Lothar Rühl (Germany) and Professor Daniel Tarschys (Sweden). My special thanks go to Dr Michael Sohlman, Executive Director of the Nobel Foundation, without whose support the symposium and the publication of this volume would have been impossible. I am grateful to SIPRI researchers Ian Anthony, Shannon Kile and Zdzislaw Lachowski, who have supported the project beyond the call of duty. All the manuscripts benefited from the editorial work of Connie Wall, Head of the SIPRI Editorial and Publications Department, and Anna Lundeborg, Editorial Assistant.

This book is addressed to policy makers, governmental experts and security analysts, researchers and journalists as well as all those who are interested in the subject, with an intention to encourage further debate on new conceptual approaches to arms control and disarmament as an important dimension of the building of a cooperative security regime.

Adam Daniel Rotfeld  
Director of SIPRI  
December 2000

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# Acronyms

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ABM	Anti-ballistic missile	CVDC	Comités Voluntarios de Defensa Civil (Voluntary Civil Defence Committees)
ACV	Armoured combat vehicle		
AF	Agreed Framework	CW	Chemical weapon/warfare
AG	Australia Group	CWC	Chemical Weapons Convention
AIFV	Armoured infantry fighting vehicle	DDR	Disarmament, demobilization and reintegration
APC	Armoured personnel carrier	DOE	Department of Energy (US)
APM	Anti-personnel mine	DPSS	Designated permanent storage site
ASEAN	Association of South-East Asian Nations	ECOMOG	ECOWAS Monitoring Group
ATTU	Atlantic to the Urals (zone)	ECOWAS	Economic Community of West African States
BASIC	British American Security Information Council	Enmod	Environmental modification
BMD	Ballistic missile defence	EU	European Union
BTWC	Biological and Toxin Weapons Convention	FMCT	Fissile Material Cut-off Treaty
BW	Biological weapon/warfare	FRY	Federal Republic of Yugoslavia
CBG	Carrier battle group	FYROM	Former Yugoslav Republic of Macedonia
CBM	Confidence-building measure	G7	Group of Seven
CBW	Chemical and biological weapon/warfare	G8	Group of Eight
CD	Conference on Disarmament	G-21	Group of 21
CFE	Conventional Armed Forces in Europe (Treaty)	HACV	Heavy armoured combat vehicle
CFE-1A	Concluding Act of the Negotiation on Personnel Strength of Conventional Armed Forces in Europe	HEU	Highly enriched uranium
CIO	Chairman-in-Office	IAEA	International Atomic Energy Agency
COCOM	Coordinating Committee (on multilateral export controls)	IANSAs	International Action Network on Small Arms
CSBM	Confidence- and security-building measure	ICBL	International Campaign to Ban Landmines
CSCE	Conference on Security and Co-operation in Europe	ICBM	Intercontinental ballistic missile
CTBT	Comprehensive Nuclear Test-Ban Treaty	IFOR	Implementation Force
CTR	Cooperative Threat Reduction	INF	Intermediate-range nuclear forces
		IOC	Initial operating capability
		IPP	Initiative for Proliferation Prevention
		JCG	Joint Consultative Group

xvi A FUTURE ARMS CONTROL AGENDA

JCIC	Joint Compliance Inspection Committee	NWS	Nuclear weapon state
		OOV	Object of verification
JOCC	Joint Operations Communications Centre	OPBTW	Organization for the Prohibition of Bacteriological (Biological) and Toxin Weapons
KEDO	Korean Peninsula Energy Development Organization	OPCW	Organisation for the Prohibition of Chemical Weapons
KFOR	International Security Force for Kosovo	OSCE	Organization for Security and Co-operation in Europe
KLA	Kosovo Liberation Army	P5	Permanent Five (members of the UN Security Council)
LEU	Low-enriched uranium	PFP	Partnership for Peace
LWR	Light water reactor	RMA	Revolution in Military Affairs
MAD	Mutual Assured Destruction	SALT	Strategic Arms Limitation Talks/Treaty
MD	Military district	SCC	Standing Consultative Committee
MIRV	Multiple independently targetable re-entry vehicle	SDI	Strategic Defense Initiative
MNLH	Maximum national level for holdings	SFOR	Stabilization Force
MOUS	Memorandum of Understanding on Succession	SLCM	Sea-launched cruise missile
MPC&A	Material physical control and accounting	SNDV	Strategic nuclear delivery vehicle
MTCR	Missile Technology Control Regime	SRCC	Sub-Regional Consultative Commission
NAC	New Agenda Coalition	SSM	Surface-to-surface missile
NATO	North Atlantic Treaty Organization	START	Strategic Arms Reduction Talks/Treaty
NBC	Nuclear, biological and chemical (weapons)	T&E	Train & Equip (programme)
NC	National ceiling	TC	Territorial ceiling
NCI	Nuclear Cities Initiative	TLE	Treaty-limited equipment
NGO	Non-governmental organization	TMD	Theatre missile defence
NISAT	Norwegian Initiative on Small Arms Transfers	UN	United Nations
NMD	National missile defence	UNMOVIC	UN Monitoring, Verification and Inspection Commission
NMT	National technical means (of verification, observation)	UNSCOM	UN Special Commission on Iraq
NNWS	Non-nuclear weapon state	WA	Wassenaar Arrangement
NPT	Non-Proliferation Treaty	WMD	Weapons of mass destruction
NSG	Nuclear Suppliers Group	WTO	Warsaw Treaty Organization (Warsaw Pact)
NTWD	Navy Theatre Wide Missile Defence		
NWFZ	Nuclear weapon-free zone		



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# Introduction

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# 1. The future of arms control and international security

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*Adam Daniel Rotfeld\**

## I. Introduction

It is a truism that today, with the end of the bipolar world order, the role of arms control and disarmament has changed fundamentally. The international security system based on bipolarity and mutual nuclear deterrence was one of high military threat and at the same time of relatively high stability. As a result, in the cold war period arms control and disarmament were seen as the highest priority in the policies of the global powers. Arms control was considered to be a pillar that supported strategic stability and maintained the balance of power between the superpowers and their respective allies. The predominant goals of traditional arms control theory, as developed in the late 1950s and early 1960s, was to enhance security, and the major powers shared an interest in avoiding global nuclear annihilation.<sup>1</sup> These twin goals helped the powers to transcend their deep ideological and political differences and engage in a strategic dialogue. Thus the main objectives of arms control were to reduce the risk of nuclear war between the two great antagonists, maintain the equilibrium of forces, reduce the costs of the arms race, and seek to limit the damage should war occur.

Arms control has become connected and interrelated with disarmament. During the First Hague Conference, held in 1899, steps were taken that are regarded as the beginning of arms control in Europe. At that time the issue of disarmament was absent from the security agenda since the contemporary major powers saw armies as not only instruments of defence but also tools of conquest and imperial expansion. Since then the situation has altered radically.

Today, none of the European states is seriously threatened from outside. The quest for territorial expansion that, 60 years ago, was the main engine propelling the European arms race is no longer a determinant of states' policies. In a nutshell, it is fair to state that interstate territorial conquest no longer determines the essence of conflicts in Europe.

<sup>1</sup> Schelling, T. C. and Halperin, M. H., *Strategy and Arms Control* (Twentieth Century Fund: New York, 1961), pp. 1–6.

\* This chapter is a composite of the author's preliminary draft and contributions by Ian Anthony, Shannon Kile and Zdzislaw Lachowski. The final content remains the responsibility of the author.

At the same time, however, the use of force to address territorial and border disputes still influences policies at the periphery of Europe and in Africa, Asia, Latin America and the Middle East.

With the profound changes that have taken place in the world, we are seeking answers to the questions: What is the importance of arms control today? To what extent does arms control help shape the international order? To what degree does it meet the challenges of the new reality?

The search for answers to these and other questions was the impetus for the convening of a group of prominent specialists, experienced politicians and negotiators at the symposium on A Future Arms Control Agenda, held on 1–2 October 1999 under the auspices of the Stockholm International Peace Research Institute (SIPRI) and organized in cooperation with the Nobel Foundation. The views presented during the symposium discussions and the SIPRI Arms Control Survey are reproduced in this volume.<sup>2</sup>

## II. Arms control: a new scope, new goals

In the cold war period, the specific objectives of arms control were to monitor, manage and regulate the competition between the antagonistic blocs. Thomas Schelling and Morton Halperin observed that arms control ‘involves strong elements of mutual interest in the avoidance of a war that neither side wants, in minimizing the costs and risks of the arms competition, and in curtailing the scope and violence of war in the event it occurs’.<sup>3</sup> In practice arms control did not tackle the roots of conflict—whether the central competition between the superpowers or conflicts between other parties. Arms control also assumed that the main actors in international relations and armed conflicts were and would continue to be states.

If, in theory, arms control embraced all types of armaments and all states, in practice it was dominated by discussion of nuclear armaments among a small number of states—and in many cases among only the two superpowers, which were concerned first and foremost with maintaining the stability of the strategic nuclear balance. Thus, participation in the arms control regime was restricted in the number of actors and the scope of discussions. Within the framework of the East–West confrontation, arms control had both a military and a political dimension in that since, where channels of communication were limited, the discussions, negotiations and agreements were often both the thermometer and barometer of the political climate.

<sup>2</sup> The SIPRI Arms Control Survey is reproduced in Part V of this volume. See also SIPRI, *The Stockholm Agenda for Arms Control: Report based on the Rapporteur’s Statement at the Nobel Symposium on A Future Arms Control Agenda, 1–2 October 1999* (SIPRI: Stockholm, 1999), a publication inspired by the debate at the Nobel Symposium on A Future Arms Control Agenda. A draft of the report was presented by the members of the Nobel Symposium’s International Programme Committee, and all the participants in the symposium were consulted during the preparation of the report. It is reproduced in annex B in this volume.

<sup>3</sup> Schelling and Halperin (note 1), p. 1.

Security in the past was based on a balance of power, equilibrium of forces and parity. At the beginning of the 21st century neither balance nor parity exists in Russian–US relations, and this bilateral relationship is no longer the central point of reference for other states in the international system. Moreover, the world has seen the proliferation of nuclear weapons to additional states, and other states are suspected of harbouring ambitions to develop or otherwise acquire them.

In the new circumstances, what might arms control come to mean? Whereas in English the term ‘arms control’ is interpreted to mean managing, administering or steering military capacities, in other European languages—French, German and Russian—the term is associated with increasing levels of knowledge about military capacities through verification, inspection and monitoring. At its broadest the term covers different forms of cooperation among states in military matters, particularly in the field of the limitation, elimination or reduction of weapons, their use and verification of arms-related agreements.

An important element of arms control in this broad sense seems certain to be transparency, that is, better knowledge and understanding of the true state of military capabilities in the world and their distribution. Outside Europe, many basic questions about the size and structure of national armed forces, the way in which they are organized and the economic resources devoted to maintaining them cannot be answered in a satisfactory way. In Europe, where an unprecedented network of overlapping transparency and confidence-building measures is in place, there are certain subregions where levels of information are inadequate. As the military capacities of non-state actors have become a more significant element of the discussion of international security, so has the realization that levels of knowledge about armed formations of this type are even more inadequate.

A second element of arms control is likely to involve safeguarding many past achievements. The main merit of previous arms control agreements was that they created a situation that facilitated peaceful transformation in Europe and in the rest of the world. Along with the treaties on the elimination of intermediate-range nuclear weapons and the reduction of strategic nuclear weapons, these agreements include: the system of rules and export controls designed to prevent the spread of nuclear weapons and nuclear weapon-usable material, of which the 1968 Non-Proliferation Treaty (NPT) forms the legal basis; substantial reductions of conventional armed forces and manpower in Europe (the 1990 Treaty on Conventional Armed Forces in Europe—CFE Treaty—and the 1992 CFE-1A Agreement); the system of confidence- and security-building measures, including the 1992 Treaty on Open Skies and the advanced inspection and information exchange mechanisms; the total elimination of chemical weapons (the 1993 Chemical Weapons Convention); and the elimination and prohibition of anti-personnel landmines (the 1997 Anti-Personnel Mines Convention).

These and other agreements have enabled the elimination of more than 60 000 heavy conventional weapons in Europe and in the Asian area of the

former Soviet Union on the basis of accords reached in peacetime, not imposed by the victors on the vanquished. In recent years, a total of 20 000 nuclear warheads have been dismantled; thus their number was reduced from some 58 000 to 38 000. The process of destroying chemical weapons has been launched, although, because of the costs, it will last longer than expected.

Despite these accomplishments, there remains much ‘unfinished business’ on the arms control agenda.

First, with the exception of the NATO and European Union (EU) member states, the security of the territories extending ‘from Vancouver to Vladivostok’ is not based on a collective, common or cooperative security system. Threats and armed conflicts have moved to Europe’s peripheries (the Balkans and the Caucasus) and to Central Asia.

Second, neither the continuous step-by-step reduction of nuclear weapons in those states that possess them nor diminishing the likelihood that new nuclear weapon states will emerge can be ensured at present.

Third, the legally binding ban on nuclear explosions has yet to enter into force, amidst signs that the no-testing norm codified in the 1996 Comprehensive Nuclear Test-Ban Treaty is not universally accepted.

Finally, the level of confidence in the implementation of treaties and agreements to eliminate biological and chemical weapons remains low in many quarters.

### **Different approaches to arms control**

Against this background, it is possible to discern three broad approaches to arms control, as reflected in the discussions at the Nobel Symposium.<sup>4</sup> One group of analysts and practitioners has argued that fundamental changes in the existing arms control framework should be avoided. Radical changes could put at risk existing processes that are not yet completed without any assurance that a new framework can be constructed to substitute for them. In the view of this group, the future of arms control will consist of implementing, strengthening and further developing existing agreements and processes.

A second group of analysts and practitioners accepts the objectives of the current arms control agenda but argues that these objectives cannot be realized through existing agreements and processes under the present conditions. An extension of this view is the argument that focusing narrowly on existing agreements in conditions where political relations are strained may diminish security by amplifying disagreements. The impact of the debate over the relationship between the 1972 Anti-Ballistic Missile Treaty (ABM Treaty) and missile defences on relations between China, Russia and the USA could be pointed to as an example. For this second group, arms control processes need

<sup>4</sup> There are of course other views of arms control which were not represented at the Nobel Symposium. See, e.g., Schlesinger, J., ‘The demise of arms control?’, *Washington Quarterly*, vol. 23, no. 2 (spring 2000), pp. 179–91.

to be supplemented by other types of political, economic and even, under certain conditions, military initiatives if the objectives of arms control are to be achieved.

Finally, a third group of analysts argues that the current objectives of arms control processes are too narrow and fail to address new challenges and problems that represent the primary threat under the new international conditions. For this group, the arms control agenda should be expanded to include more types of weapons (small arms and light weapons), more types of equipment (non-lethal 'high technology'), more issues (humanitarian issues, economic issues and governance issues) and more actors (international organizations and non-governmental actors). In their view, this widening of the arms control agenda is a paramount task, even if the consequence is that existing processes are scaled back or discontinued to release resources for reallocation.

### III. Current problems and new challenges

The different approaches to arms control described above are not mutually exclusive. The task of finding common ground among the groups supporting them will be facilitated if arms control can make progress in solving problems, demonstrate its relevance to the new security environment and adapt itself to new challenges.

#### **The central problems of arms control today**

The central problems facing the arms control process at present can be summarized as follows.

##### *Defining the role of the major powers*

First, there is the problem of deciding who are the 'players' that need to be assembled at the table when arms control is discussed. Arms control traditionally has been the preserve of those states that possess the weapons. It has depended on the ability of major powers to work together in pursuit of particular objectives. The cold war demonstrated that arms control does not require that the interests and policies of these powers are aligned, but there has to be a willingness to cooperate.

The special role assigned to the United Nations Security Council in matters of peace and security and the fact that the five NPT-defined nuclear weapon states are permanent members of the Security Council tended to cement the impression that military power and major power status were two sides of the same coin. However, other states now claim to have a legitimate stake in the arms control process without either being in possession of extensive military capabilities or intending to develop such capabilities. The exclusion of countries such as Germany, India and Japan from a central place in discussions of

issues affecting global peace and security may undermine the credibility of those discussions. While each of these countries will react differently to the fact of its exclusion, no doubt they will all react in some manner.

In addition, there is an important new actor on the international scene for which arms control is a crucial concern. With the establishment of the EU in 1993, a group of states (moreover, a group that is expected to expand in number) are developing, step-by-step, a more integrated approach to foreign and security policy that is likely to become increasingly influential in the future.

### *Need for a new organizing principle*

A second problem arises from the need to consider the organizing principle for arms control in conditions where there is no longer any meaningful balance or symmetry between military capabilities.

Past treaties usually conferred equal obligations and status on participating states in line with the principle of sovereign equality. This often translated into a carefully calibrated balance in numbers of agreed items that were the objects of control. This balance may have been set at zero in the framework of disarmament treaties or at higher levels in other agreements. This organizing principle no longer applies at the global level, given the power of the USA. Moreover, agreements based on parity are not feasible at the regional level. They may not even be applicable at the subregional or bilateral level, where ‘dyads’ at the centre of conflict and instability have very different force structures and force levels.

### *Responding to non-compliance*

A third major problem for arms control is the need to develop responses to unambiguous evidence that some states are cheating on their legally binding obligations and commitments. Cheating does not include inadvertent or accidental failures to implement an agreement or differences of interpretation about the obligations contained in an agreement. These issues are important but manageable within the framework of arms control processes because the good faith of the parties is not disputed. Rather, cheating means that a state promises to take a course of action while at the same time intending to behave in ways known to be proscribed and that violate the basic principle of the agreement.

None of the main ‘compliance crises’ revealed in the 1990s—the Iraqi violation of its NPT commitments, the North Korean violation of its safeguards agreement with the International Atomic Energy Agency, and the Soviet violation of the 1972 Biological and Toxin Weapons Convention—has been fully resolved. This fact remains a serious problem and has contributed to undermining the international community’s confidence in the efficacy of multi-lateral arms control instruments.



### **The challenges of the post-cold war period**

After the end of the cold war the progressive downgrading of the importance attached to arms control and disarmament reflected the reduced emphasis on strategic and politico-military matters. In the 1990s greater priority has been given to a range of questions in the economic, financial, constitutional, environmental and social spheres. In the absence of a greater recognition that the international security system will not run on 'auto-pilot' without engagement from senior leaders, there is a risk that, over time, strategic and politico-military issues will play a negative role in international relations.

The current situation may bring us to the paradoxical conclusion that nuclear weapons are gaining in importance not only in Asia but also in the northern hemisphere. Concerned with the high technology of the Western world and its advantage in conventional weapons, Russia places increasing emphasis on its nuclear potential. This is the leverage by which, as Russia's new military doctrine and new national security concept of January 2000 bear witness, it seeks to restore its world power status.<sup>5</sup> Members of the Atlantic Alliance and the EU that engage in peace-enforcement operations far from their countries may find nuclear weapons a future guarantee of their security.

The relatively easy availability of nuclear dual-use technologies to non-European states that also seek missiles that could deliver nuclear weapons makes the USA seek more effective defensive devices. The debate over military defences and the ABM Treaty (often called 'the cornerstone of strategic stability') risks becoming a proxy for a discussion about the distribution of power in the international system.

In Central and Northern Europe the priority is no longer defence in the traditional form but political and socio-economic preventive activities aimed at preventing and removing the sources of potential conflicts. However, of importance for arms control is not only the military restraint of states but also the role and implications of military collaboration and the creation of joint multinational units to respond to crisis situations.

Conflicts in the 1990s have demonstrated that small states and even non-state armed groups can accumulate offensive military capabilities that are formidable in the context of their specific strategic environment. These capabilities can be acquired covertly and their use can lead to a loss of control by the state over part or even all of the territory where it exercises legal sovereignty.

<sup>5</sup> President Vladimir Putin formally approved the new Russian military doctrine in his decree of 21 Apr. 2000. The full text is published in *Nezavisimaya Gazeta*, 22 Apr. 2000, p. 5.

#### IV. From deterrence to regulation

The new security environment presupposes a new role for arms control in the emerging international security system. For many states, effective arms control during the coming period will not be based on codifying a balance of power but on shaping a cooperative security regime with regulatory means.

Although many politicians and military officers in Asia and Russia still assume that some balance-of-power arrangement could be engineered, this thinking is wrong because there are no states or group of states which could uphold such a balance. Neither China, Russia nor any other state can aspire to balance the power of the rest of the world. In turn, even if the EU strove to strike a balance with the USA in new technologies and modern armaments, it would not be able to do so. For the USA to try to translate its military predominance into a direct instrument of coercion would be counter-productive in terms of achieving its own primary objectives.

Another determinant of the new security premises today should be that states which deliberately violate the widely accepted principles and norms of the international system are bound to face political, economic and even military coercion to respect those principles and norms. The recent past has seen the imposition by force of respect for the rules and norms of international law. This includes the solidarity displayed by many states and organizations towards Albania and Bosnia and Herzegovina and the introduction of UN peace forces in Macedonia and other states in several regions outside Europe. Finally, there was the NATO intervention in Kosovo.

This calls for rethinking some of the fundamental tenets of international law. With reference to human rights and the respect for minorities' rights, the principle of sovereignty needs to be redefined. Sovereignty is often interpreted in an abstract and absolute way. The principles of non-intervention in internal affairs, territorial integrity of states and self-determination of peoples also call for deeper reflection. As far as the latter is concerned, the question arises whether the main form of implementation should be secession; if so, then what are the limits on the formation of new states, the number of which has grown more than three times since the signing of the United Nations Charter? If it is deemed advisable and legitimate to draw up a new principle of cooperative international intervention or principle of international solidarity, the situations in which this is necessary should be clearly identified, and procedures and mechanisms should be set for respecting proportionality and not inflicting unnecessary harm and suffering.<sup>6</sup> Who would be entitled to take decisions and under which circumstances in cases where the Security Council has become

<sup>6</sup> SIPRI, *A Future Security Agenda for Europe*, Report of the Independent Working Group established by the Stockholm International Peace Research Institute (SIPRI: Stockholm, Oct. 1996), pp. 6–7.

hamstrung by a veto because of the political interests of one or more of its members?<sup>7</sup>

In other words, arms control can play a significant role by becoming an integral part of the new international security system. However, it cannot be boiled down simply to international legal instruments (treaties and conventions); rather, it should constitute a part of security policy and defence at the national level and of conflict resolution at the global level. Treaties and conventions remain central because they provide clarity about the obligations of states and an institutional framework within which resources can be mobilized and organized. However, treaties and conventions need to be supplemented with a habit of dialogue and discussion that assists in making actions consistent with agreed norms.

The current binding normative order is the point of reference for seeking solutions that would tackle the challenges and situations of today and tomorrow. This normative order provides a platform on which to build but should not itself be placed in question. It must then be asked how the activities of those states which for different reasons have found themselves outside the current order can be regulated—in particular, how the world community should respond to the activities of states which violate important norms codified in arms control agreements to which they are not parties. Ways must be considered for including in the arms control process those states which have an eroding influence on it.

The states whose leaders believe that the current normative order is inadequate or even wrong will not participate in cooperative arrangements on an official level. However, individuals from this group of states can and should participate in the wider discussion of the role and impact of arms control. Moreover, in these states public information can play a valuable role in making possible a debate on the merits and demerits of cooperation.

This discussion may lead those who are hostile to arms control to change their view. At the least it may induce them to formulate their objections to arms control clearly and explicitly. If these arguments can be shown to be weak or incorrect, this may help shape the views of undecided actors, leading them to engage in cooperation. If the arguments put forward by critics are correct, then they can be incorporated in a revised normative framework.

## V. New priorities

In these circumstances, the SIPRI report presented at the Nobel Symposium on A Future Arms Control Agenda set out a new list of priorities with regard to arms control in the context of the emerging international security system.<sup>8</sup>

<sup>7</sup> Rotfeld, A. D., 'Rethinking the contemporary security system', *SIPRI Yearbook 1999: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1999), pp. 2–5.

<sup>8</sup> SIPRI, *The Stockholm Agenda for Arms Control* (note 2), p. 1.

1. *To initiate a focused dialogue on the political and strategic context in which arms control is being carried out.* While it is often said that the world has changed dramatically in the past decade, these changes are seldom reflected in political and legal decision making. It is particularly important to consider the implications of changes in the relative political, economic and military power of states. Against the background of a growing number of independent states and the emergence of new centres of economic growth and technological innovation, the arms control agenda needs to be responsive to the interests of a wider group of states.

2. *To revitalize the institutional framework for making and implementing arms control policy without assuming the primacy of any single institution.* Overemphasizing the legal dimensions of treaties at a time of rapid political change has proved to be sub-optimal as a means of achieving the broad objectives of arms control and disarmament. A mix of unilateral, bilateral and multilateral processes, including both politically binding and legally binding instruments, in the pursuit of agreed goals may prove to be a better way of building cooperative security.

3. *To organize the relations between major powers in ways that minimize the risk of war.* The major powers need to supplement their existing general commitment to the peaceful resolution of disputes with strengthened consultation mechanisms, in particular in those regions and around those issues where their disagreements are the sharpest. Two issues that stand out are: (a) the need for a new security dialogue among the nuclear weapon states—in particular Russia and the USA—to coordinate nuclear plans and deployments in order to minimize the role of deterrence in their mutual relations; and (b) the need for a new security forum in North-East Asia to consider the implications of theatre missile defences and related nuclear issues.

4. *To engage the USA in the international system on the basis of responsible leadership within a common framework.* With the collapse of the bipolar security system, the entire concept of bilateralism in arms control had to change radically. A key part of the international political and strategic context of arms control is the enormous political, economic and military weight of the USA. If the USA is to continue to see a self-interest in multilateral cooperation (and it is only on this basis that US engagement can be ensured) then other states should accommodate many US interests in multilateral forums. The special position of the USA within the international security system has opened a new possibility for a more cooperative approach. This implies for the USA a more ambitious and integrated approach both to nuclear arms control and to control of other weapons of mass destruction than has been witnessed in the past. It requires a comprehensive scheme for the revitalization of the reduction and dismantlement process as well as for the prohibition of the production of fissile material for military purposes. It requires the acceptance of the new realities by the USA and of a new role for the USA based on the

mutual interests of the other actors. For the USA it means a need to consider arms control as an integral part of a broad conception of the US national interest. The failure to manage multilateral processes without US participation has spurred other states and organizations to make greater efforts to raise their capacities for individual and collective action. This is a welcome development, but it should be accompanied by continuous and structured dialogue between the USA and its partners.

5. *To manage relations with the few states outside the normative framework for nuclear, biological and chemical weapons-related arms control and disarmament.* Recent experience in North Korea suggests that relations with states that have placed themselves outside the normative framework for arms control by violating their commitments under existing arms control and disarmament treaties can be managed effectively outside the UN Security Council but under general Security Council authorization. Far from reducing cohesion among the permanent members of the Security Council, this more decentralized approach has made it easier to build a political coalition that engages not only the five major powers but also other relevant actors in a common search for a solution to the problem of compliance. By contrast, the attempt to manage the response to Iraqi non-compliance directly through the Security Council has amplified disagreements between the five permanent members. The criteria for Security Council membership do not necessarily facilitate participation by all relevant actors in a search for a common solution to the problem. The experience after the nuclear tests conducted by India and Pakistan in 1998 suggests that managing relations with states that have chosen not to join the nuclear arms control regime would be facilitated by an informal but high-level multilateral dialogue on the role of nuclear weapons in national and international security. Such a dialogue may produce a new consensus that would have no direct legal implications, but it could provide a platform for progress in revitalizing existing nuclear arms control processes.

6. *To establish a rule-based agreed framework for the legitimate use of force in the new security environment.* The main priority of security policy should be to ensure peaceful political changes. However, with limited exceptions—notably in Western and Central Europe and in North America—the perception that the use of force ‘works’ continues to undermine the willingness of states to rely exclusively on peaceful means to resolve their political differences. An important priority in these conditions is to stimulate dialogue on the principles and organization of national military and paramilitary establishments. The dialogue should include discussion of the constitutional processes by which decisions are taken on the use of force as well the rights, tasks and duties of armed forces. Recent events in, for example, the former Yugoslavia and East Timor have underlined the utility of force as an instrument of political change in the eyes of sub-state or non-state groups with political objectives. The 1996 Florence Agreement on Sub-Regional Arms Control, which includes the constituent entities of Bosnia and Herzegovina as parties along with the states of Croatia and the Federal Republic of Yugoslavia, has demonstrated that it is

possible to regulate the military potential of sub-state groups with political objectives. General principles and practical arrangements that can regulate the military potential of sub-state groups should be elaborated through an informal international dialogue that includes the participation of representatives of sub-state armed groups.

These priorities reflect a pragmatic and informal approach. Arms control is not a value per se. It is part of the common and cooperative security system. The dimensions and rules of arms control are changing. These changes concern: (a) its military relevance; (b) its legally binding character; (c) the scope and content of the obligations undertaken; and (d) the verifiability of agreements. In this context, several issues remain open. The search for appropriate solutions calls for not only a revitalization of the institutional framework for reforming the existing arms control and security system but also a creative and unconventional approach.

The new arms control strategy is taking shape in an environment for which a functioning security system has not yet been worked out. As long as such a system does not exist, there will be no arms control strategy; it will be bound merely to react to specific situations. In short, an organizing principle for the new system is needed. The political philosophy of mutual assured destruction of the past should be replaced by a future-oriented concept of cooperative threat reduction which would tackle both conventional armaments and weapons of mass destruction. In the past, arms control became more effective and comprehensive when its political significance was on the wane. Today it can only gain significance if it constitutes an integral part of the emerging international cooperative security system.

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Part I

The security environment and arms control

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## 2. Arms control: an endangered species in the new security environment?

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*Alyson J. K. Bailes*

### I. Introduction

At a time when Europe is reunited, has remained fairly united in tackling its remaining 'rogue state' and has cut its collective defence spending by 40 per cent since 1990, it may seem strange to talk of arms control as being in danger. However, while arms control had a clear role in ending the cold war, its place in winning the new peace is less certain. As Lawrence Freedman predicted long ago, more arms have been cut by finance ministers this decade than under any arms control regime. The thoughts and actions of those actually building security and making peace today have drifted far from the traditional arms control agenda, and arms control specialists are at some risk of moving in a direction that widens the gap. The obvious danger is of a marginalization of arms control as a subject and atrophy of its measurable results. The real nightmare would be if its efforts and effects were unwittingly harnessed for ultimately destabilizing ends.

One part of the problem I shall mention only to abandon it, as it needs a speech in itself, is the economic costs and disincentives attached to arms control and its increasing technical complexity. What I do want to talk about is what is happening in the field of what might loosely be called 'positive' security and the challenges it presents for some traditional arms control assumptions.

The northern hemisphere and Europe are where the world's two largest military powers interact, so I hope I may without cultural prejudice start drawing the picture from here. It is hardly worth the name of cliché any more to point out that the old East–West two-bloc system has broken down. From the balanced deterrence which provided such fertile fields for arms control we have moved to an environment dominated by enlargement or, in more general terms, by the integration dynamic and the challenge of its borderlands, and to a Western concept of security making which is increasingly expeditionary, that is, based on the use of one's own forces away from home to prevent, limit or resolve third-party crises. Among countries which are involved in or attached to integration processes, confidence and security building is no longer carried on through self-restraint and non-interference but by a highly intrusive process of familiarization and sharing, including the creation of multinational forces to practice or actually carry out crisis management. Verification systems originally set up for East–West stabilization have been redirected jointly

by their Western and ex-Eastern participants to the control of remaining 'problem states' such as the former Yugoslavia.

All this is good news in positive security terms, but it hides a number of sub-trends which are at best ambivalent for arms control and of which I shall here sketch only four.

## II. Four contemporary trends in arms control

1. The Defence Capabilities Initiative adopted by NATO this spring and parallel efforts to strengthen an autonomous European defence potential imply a growing pressure in the West for conventional rearmament or at least a halt in the taking of 'peace dividends'. Finance ministers will of course put limits on this and we may see some European countries still making what look like large cuts, but some of these will involve cutting away bits of territorial defence that no longer serve the expeditionary goal and will reflect a general trend to raise the equipment : manpower ratio. Another upward pressure will be the USA's insistence on using the highest available levels of conventional technology, which partly reflects a specifically US preference for remote delivery and minimal human risk, but which the Europeans cannot simply brush aside because expeditionary missions make such high demands on interoperability. Parts of Central and Eastern Europe which are now in NATO or want to join it cannot help but be affected by the same pressures.

2. In superficial paradox, this situation may increase rather than reduce nuclear reliance in the northern hemisphere. Western states which deploy the cream of their forces abroad for altruistic goals may come to value nuclear forces more as a kind of burglar alarm on their vulnerable homes. Russia feels threatened, or at least disadvantaged, by the new stress on Western conventional superiority and for some time has been showing the signs of an increased nuclear emphasis. There is a potential vicious circle with non-European nuclear-capable states because they will feel vindicated in seeking nuclear protection by the North's seemingly hopeless addiction to it, but any new signs of proliferation will only increase the Northerners' determination to keep a convincing nuclear superiority. The nasty twist to look out for will be the temptation, especially for the less secure powers, to move away again from the idea of relatively simple, defensive arsenals and to toy with hopes of tactical break-out through the development of more flexible, inevitably also more usable systems. Another kind of break-out is of course the revived attempt by some in the USA to create a perfect anti-missile shield, which has all the same things wrong with it as in the old days, including the undermining of the 1972 Anti-Ballistic Missile Treaty (ABM Treaty), but could be far more destabilizing nowadays if it offers strategic immunity to the remaining superpower (with or without its chosen friends). One of its incidental effects would be to tempt the protected powers more or less to give up on non-proliferation: and

one of the worrying things about the revival of the idea is that it could imply that they already have.

3. When the handling of rogue states becomes challenge number one and when these states happen to be on the fringe of or outside the established security systems, the first casualty is the traditional idea of deterrence and the second may be the approach to security through universal regulation. Cold war-style deterrence based on visible balance cannot work between highly asymmetrical or between ad hoc opponents. The West would never use nuclear weapons against Yugoslav President Slobodan Milosevic. The only way to stop such saboteurs of the peace is by active dissuasion, which almost always means a demonstration of superior power: actually making war to end war, rather than the cold war principle *si vis pacem para bellum*. Now, in such a world of shifting battlefields and expeditionary actions, one kind of arms control might seem more relevant than ever, that is, the notion of universally applicable 'laws of war' which are generally reflected today in formal global regulation. However, as we have seen in both Iraq and the former Yugoslavia, the experience of fighting a completely unprincipled opponent while one's home population is at peace and expects to limit its losses accordingly puts heavy strains on the most high-minded coalition's respect for international legality. The question of a legal mandate is the first that may have to be blurred, followed by the classic definitions of proportionality and collateral damage and the inhibition against pre-emptive strikes. Up to this point Western actions may still be within the letter of arms control law as such, but laws can be weakened in other ways than by directly breaking them: notably, by giving up any hope of their enforcement and destroying the other side's illegal capacities by force instead. The messages about arms control and security conveyed by all this to other regional actors are going to be mixed at best. Too often now when local arms control regimes are set up they are presented only as part of the tidying up after a conflict and as a kind of punishment reparation inflicted on the guilty party. Non-guilty countries which aspire to be makers of security themselves can hardly be blamed for following what the West does rather than what it preaches and for fighting free of all limitations on the growth of their own intervention capability. This is the more likely because their own regional concerns do not always give the same salience to isolated rogues that we do; their military targets are set by reference to long-term, perhaps quite respectable rivals, and the knocking out or down of the rogue is no reason for them to cut back—especially with our own arms salesmen knocking harder than ever at their door.

4. The kind of global disarmament that focuses on outlawing inhumane, destabilizing technologies may also become harder to achieve in this situation just as it becomes more relevant. The West, having sold its best conventional arms freely to regions of potential intervention, is now highly motivated to keep whatever high-technology edge it can to limit the vulnerability of its supposedly superior peacekeepers and above all to give them the chance of finishing their mission fast. It will therefore prefer to push for the abolition of low

technologies which it no longer needs itself and which make expeditionary environments harder, such as anti-personnel mines and small arms. The trouble is that the control of such items by export restriction alone is almost hopeless and the traditional approach by international convention merely ensures that the regions most prone to use such devices will opt out. There is an obvious risk here of an asymmetrical arms race where Western superiority will force rogue or recalcitrant states to use ever more illicit arms from ever more illicit sources and where, consequently, the danger of a break-out into use of nuclear, biological and chemical weapons will grow even as the moral majority are congratulating themselves on having outlawed far milder techniques.

### III. Conclusion

I have deliberately not left much time to discuss solutions for all this because I do not know what they are. I can only suggest some possible shifts in perception or approach that might help the true arms control experts to find them. The first and most obvious is to see security processes as a continuum, in any given region or any domain of regulation: arms production, defence structure and doctrine, military action, disarmament and arms destruction are all parts of a single cycle and the goals of arms control may be met just as well by intervention at some other point in the cycle, just as they will be frustrated by narrowly conceived actions that misread the dynamics of the whole.

A simple question to ask about security building is what works: where are potential crises that have not happened? A lot of them today are in Europe but they are also in places like Central and South America or South-East Asia, and they mostly have to do with the growth of multilateral integration. In Europe, I am personally convinced, the often violent crises of the borderlands can only be overcome in the long run by integrating them, whether we are thinking of the Balkans or Russia or even the Caucasus. We may have to stick with some of the traditional methods and conundrums of arms control until we can clear the obstacles that stand in the way of starting this process, but it could still be a useful mental exercise to ask ourselves what the military posture of an extended European Union free trade area including Russia would be, and what we should be doing with Russia if we were working towards that structure now. Some of the logic of Western positions on the 1990 Treaty on Conventional Armed Forces in Europe look a bit different and in the nuclear field I suspect a reliable joint deterrent force without war-fighting frills would seem much more worth striving for than any kind of missile shield.

In other regions we need an approach to arms control and confidence building that recruits the good states for all parts of the security cycle, rather than risking distortion by over-concentration on the bad. One part of this problem is how to persuade a player as influential as China that its interests are best met by arms control and non-proliferation even before it has fully become a status

quo power. Another is how to pursue the idea of local peacekeeping and military cooperation groupings in full awareness of the pitfalls while digesting the first round of inevitable disappointments. Another is to set aside Eurocentricity and look more seriously at the reasons for the success of local initiatives that have worked, like disengagement along the Chinese–Russian border. A general point to ponder here is whether the transition to cooperative security always needs to be made via a stage of balance and stand-off as in cold war Europe or whether some regions might be able to jump directly to an added-value-creating multilateralism. Certainly I would say that any Western initiative that has the effect of making security relationships in another region more bilateralized must be a questionable one: this is one of several errors we thankfully managed not to commit when responding to the nuclear break-out of India and Pakistan.

Finally, I would argue that if we believe in the universal regulatory approach to arms control—and it is hard not to believe in it when globalization has become a fact in so many other dimensions—we must accept that the West, too, will have to pay a price for it. That is clear in questions of method like accepting intrusive inspections or sharing data, and it applies to the questions of agenda, where we cannot go on much further with curbing the indulgences of the weak while ignoring the temptations of the strong. It will sometimes also mean denying ourselves the quickest military solution to a particular problem, and that in turn will demand patient explanation to the public, media and sometimes importunate allies. However, if we can face up to all these challenges and, incidentally, solve a few other problems like the economics of arms control and its application to non-state players, we have the chance now to open up new battlefields for arms control that will leave the cold war looking like hardly more than a skirmish.

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## 3. A security strategy for the 21st century

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*William J. Perry*

### I. Introduction

We are approaching the end of this century, and what a century it has been—one of both triumphs and tragedies. The tragedies included two world wars and a cold war. The world wars resulted in the deaths of tens of millions, soldiers and civilians alike. As tragic as these wars were, the cold war would have been even more tragic if the ‘balance of terror’ which characterized it had failed. Indeed, the failure of deterrence would have resulted in a supreme tragedy—no less than the end of civilization. Deterrence did work, however, and now the cold war is over. The whole world breathes easier.

The century has also seen the collapse of the great European monarchies and the rise and fall of fascism and communism. Finally, it has seen an explosion of democracy, especially in Eastern Europe and Latin America. This explosion of democracy is surely one of the great triumphs of our time and a most hopeful note on which to end the century. These new democracies are fragile, however, so it is a mistake to believe that we have reached ‘the end of history’—the end of security problems. Indeed, one of the great challenges of this new era is to formulate a new security strategy that can deal adequately with the daunting problems facing us. I will describe the need for a new security strategy to deal with the new security problems that the world will face in the 21st century. In particular, I will argue that this strategy should be based on preventive defence—the actions we take to create the conditions for peace, thereby minimizing the likelihood of war.

Because I believe that the past is truly prologue, I will begin by asking you to take your minds back more than 50 years, to the period after World War II, when our nations faced an analogous problem in formulating a new security strategy. At that time Europe lay in ruins, shattered both physically and psychologically. At this critical point in history the USA did something never done before in the history of the world. We created the Marshall Plan, which sought to prevent a future war by assisting the devastated nations of Europe, friends and foes alike, in rebuilding their economic infrastructure. George Marshall saw this as a way to prevent a third world war, and indeed, the enlightened economic programmes that resulted contributed to the prosperous and peaceful nations developed in Western Europe and Japan. Joseph Stalin turned down the Marshall Plan and embarked on a programme to bring Central and Southern Europe under his control. This problem was described famously by George Kennan, in a seminal article in *Foreign Affairs* published over

50 years ago.<sup>1</sup> Kennan argued that, as the wartime cooperation with the Soviet Union was replaced with a struggle for the heart of Europe, we would be in for a protracted period of confrontation. The Truman Administration accepted this analysis and formulated a security strategy for getting us through the cold war: containing the Soviet Union, while at the same time deterring another global war. Deterrence thus supplanted prevention as the predominant security strategy for more than four decades. The whole world lived with the threat of nuclear holocaust every day of that dangerous period, but deterrence worked, and today, for the first time this century, there is no threat of a global war. The Soviet Union is gone, and Russia and the other successor states, although undergoing economic and political trauma, are nonetheless cooperating with Western nations economically, politically and even militarily. In short, the threat that inspired our cold war security strategy is gone. While we rejoice at this outcome, we must also ask ourselves two fundamental questions. In the absence of a threat of global war, what dangers do we face today? What security strategies do we need to deal with these dangers?

## II. Prevention of war

This paper will focus on the security need that is least understood by the public—the need to prevent the re-emergence of the threat of major war. In the book *Preventive Defense*, which I co-authored with Ashton Carter, we argue that it is time to return to the prevention strategy pioneered by George Marshall, which succeeded in Western Europe and Japan but failed in Eastern Europe.<sup>2</sup> We described what we called a ‘type A threat’—a threat to national survival of the type that many of our nations faced three times this century, in World War I, World War II and the cold war. Today the USA is in the happy circumstance that it faces no threats to its national survival and the world is in the happy circumstance that it faces no threat of a global war, a threat that characterized much of the 20th century. What are the dangers that could emerge as ‘type A threats’—threats to national survival or threats of global war—in the future? Unfortunately, they are not academic; indeed, they are very real. I can characterize some of these dangers by asking three ‘what if’ questions. What if, in the next decade, Russia should go the way of Germany in the 1930s? What if, in the next decade, China should go the way of Japan in the 1930s? What if, in the next decade, rogue nations or terrorists should obtain weapons of mass destruction (WMD)?

By asking the questions this way, I am suggesting that a primary goal of our security strategy should be to keep these dangers from transforming themselves into type A threats and to achieve this goal with a programme of pre-

<sup>1</sup> [Kennan, G. F.], ‘The sources of Soviet conduct’, *Foreign Affairs*, July 1947, published under the pseudonym ‘X’ and reprinted as ‘The sources of Soviet conflict’, *Foreign Affairs*, vol. 65, no. 4 (spring 1987), pp. 852–68.

<sup>2</sup> Perry, W. J. and Carter, A. B., *Preventive Defense: A New Security Strategy for America* (Brookings Institution Press: Washington, DC, 1999).

ventive defence. It is clear that this challenge requires diplomatic and economic initiatives as well as defence initiatives—but defence does play a critical role in implementing such a strategy. It is also clear that the USA or even all the Western nations acting in concert cannot control the outcomes—but we can influence them, and it is imperative that we try. I will give brief examples of some of the preventive defence programmes on which the USA and other nations have already embarked in an attempt to keep these dangers from becoming threats.

The most dramatic example of preventive defence in action is the Nunn–Lugar Programme, by which the USA has assisted the nations of the former Soviet Union in dismantling over 4000 nuclear weapons, destroying over 800 launchers and converting three nations—Belarus, Kazakhstan and Ukraine—into non-nuclear weapon states.

In addition, the USA joined with Russia to create the Gore–Chernomyrdin Programme to help Russia in its economic restructuring efforts by facilitating joint ventures between Russian and US companies which bring desperately needed capital to Russian businesses. The USA also joined with Germany in establishing the Marshall Center, which provides education in how a military functions in a democracy. Twice each year a new class of 60 officers of East European countries gather for six months in Garmisch-Partenkirchen, Germany—these officers will be among the leaders of these countries as they struggle to establish democratic societies and market economies. The USA joined other NATO nations in establishing the Partnership for Peace (PFP), in which 26 Central Asian and East European nations joined the then 16 NATO nations to build in practice the elements of a common European security. The most dramatic success of the PFP to this date is the NATO peace enforcement operation in Bosnia, where 26 partner nations, including Russia, joined 16 NATO nations in this action, critical to sustaining security and stability in Europe. Earlier this year a similar coalition was formed to facilitate the safe return of nearly 1 million displaced Kosovars. In both of these military coalitions, Russia joined NATO nations in forming the peace enforcement military force—a critically important decision that will have a positive effect on the security of Europe into the 21st century.

Now let me turn to the second ‘what if’ question I asked. What if China, early in the 21st century, were to go the way of Japan in the 1930s? In the 1930s Japan was a rising power in the Pacific—rising as an economic, political and military power—and this inevitably brought it in conflict with the other great Pacific power, the USA, resulting ultimately in the bloody Pacific phase of World War II. Today China is a rising power in the Pacific, rising economically, politically and militarily, and this leads inevitably to conflicts of interest with the USA. The goals of preventive defence are to resolve these conflicts constructively and peacefully.

The USA, under its past six presidents, has tried to protect our long-term security through a preventive defence programme with China, which we call engagement. We believe that continuing and extending engagement serves the



security interests of both countries and minimizes the risk that the inevitable conflicts of interest between China and the USA will degenerate into military conflict. However, this engagement policy has had its ups and downs since the signing of the Shanghai Communiqué by President Richard Nixon and Premier Chou En-lai in 1972.

The most serious flashpoint in Chinese–US relations is Taiwan, illustrated most dramatically by the crisis engendered by the Chinese firing of missiles near Taiwan in March 1996. In response to those missile firings, and with the authority of President Bill Clinton, I ordered two carrier battle groups (CBGs) sent to the Taiwan Strait. We had some tense days over that decision, but in fact China stopped its firings and exercises before the CBGs arrived, so the crisis passed without incident. The Taiwan issue can be settled only by the parties themselves, of course, but the USA can play a constructive role by encouraging both sides to engage in serious talks leading to enhanced communications and traffic across the Taiwan Strait.

### III. Major crises and potential threats

Now let me go to the third ‘what if’ question. What if rogue nations or terrorists were to get their hands on WMD?

The vital security interests of all nations are threatened by the potential of terrorists or rogue nations acquiring nuclear weapons and their delivery means. The USA has defence programmes designed to deter or defend against such a threat, but our security is clearly better served if we can prevent this threat from emerging. We have established programmes designed to prevent the proliferation of WMD. Nevertheless, we are seeing the emergence of a dangerous proliferation of nuclear weapons, particularly in Asia. Iraq continues to pursue the development of WMD and has succeeded in curtailing the United Nations Special Commission on Iraq inspections designed to contain these programmes. Iran proceeds with a high-priority programme to build long-range ballistic missiles and has a robust reactor programme that could produce the fissile material needed to provide nuclear warheads for these missiles. Last year, India and Pakistan tested nuclear weapons and declared themselves to be nuclear weapon nations. They have under way programmes to adapt this nuclear capability to delivery systems, including ballistic missiles, and to produce these weapons in some quantity. I believe it is only a matter of time until they deploy nuclear-tipped ballistic missiles, and I believe that this greatly increases the danger that they will be used, either in anger or through a failure of command and control. Both nations insist on their right to possess WMD. Neither nation, I believe, has reflected seriously enough on the danger that these weapons will bring down on their heads a nuclear catastrophe.

For the past five years, the USA has focused on another example of proliferation in Asia—one that could be even more dangerous. For the 45 years since

the end of the Korean War, the Korean peninsula has had not peace, but an armed truce. North Korea maintains an army of 1 million men, most of whom are based near the border. These forces are deterred by South Korean and US forces, which are only half the size of the North Korean forces but are backed up by the highly ready US forces in Japan, Hawaii and Alaska and on the west coast of the USA. As a consequence, deterrence is strong and peace has been maintained on the peninsula for the past four decades.

Five years ago, the USA came close to a military conflict with North Korea over its nuclear programme. The North Korean nuclear facility at Yongbyon was about to begin processing nuclear fuel, which would have provided North Korea with enough plutonium to make about half a dozen nuclear bombs. We believed that the introduction of those nuclear weapons would upset the deterrence posture on the peninsula and were within a day of imposing severe sanctions. North Korea said that it would consider the imposition of sanctions as an act of war and proclaimed that it would turn Seoul into a 'sea of flames'. Some argued that this was only rhetoric, but we believed that we had to take it seriously. We therefore undertook a detailed review of our war contingency plan, and the USA began preparations for sizeable troop reinforcements in South Korea. In the event of a war, we were confident of a decisive allied victory, but not without high casualties on all sides.

Fortunately, that crisis was resolved not by war, but by a diplomatic agreement known as the Agreed Framework (AF). The AF provided for a freeze at Yongbyon, to be followed in time by the dismantlement of those facilities. Today, the nuclear facilities at Yongbyon remain frozen. That result is critical for security on the peninsula, since during the past five years those facilities could have produced enough plutonium to make dozens of bombs. The dismantlement of Yongbyon awaits construction of the light water reactor (LWR) called for in the AF, but that construction is still several years away. Therefore, production of plutonium could restart in a few months if the AF were to be aborted.

About a year ago we appeared to be headed for another crisis like the one in 1994. US intelligence had reported the construction of a number of underground sites in North Korea. Our most serious concern was centred on an underground site under construction at Kumchang-ni, which was large enough to house a reactor and a processing facility. At the same time, North Korea had begun serial production and deployment of the No Dong, a medium-range ballistic missile capable of reaching all of Japan. Additionally, North Korea had under way the design of two long-range missiles, the Taepo Dong I and the Taepo Dong II, both of which used the No Dong missile as their first stage. These missiles, which could reach targets in parts of the USA as well as Japan, aroused major concern in both countries, because it was believed that they would use warheads employing WMD. This concern came to a head a year ago, when North Korea flew a Taepo Dong I over Japan in a failed attempt to launch a satellite. This test-firing provoked a strong reaction in both the USA and Japan, where there were calls for termination of the funding which sup-

ported the AF (LWR construction and heavy fuel oil). If the AF were to be aborted, there is no doubt that North Korea would respond with a reopening of the nuclear facility at Yongbyon. This in turn would put North Korea in the position of being able to produce the plutonium that would allow it to put nuclear warheads on its missiles.

During this turbulent and dangerous period, the US Congress called for, and President Clinton agreed to establish, an outside Policy Review. President Clinton asked me to head this review, and I agreed, believing that the time had come for a serious, solid review. Much had changed in the five years since we had resolved the last crisis with the AF, and I believed that the stakes had become even higher—for the Americans, for the Koreans and for the Japanese.

During the course of the study, we had extensive consultations with our allies, beginning the very first week of the study, which I believe made a very significant contribution to our success. In addition, we consulted with and got some support from China, the European Union and Russia.

The first conclusion of the study is that the military correlation of forces on the Korean peninsula strongly favours the allied forces, even more than during the 1994 crisis, and I believe that this is understood by North Korea. Therefore, deterrence is strong, unless it is upset by the introduction of nuclear weapons, especially nuclear warheads on ballistic missiles.

Our second conclusion is that there has been no production of fissile material in North Korea since the AF came in force, but that production at Yongbyon could restart in a few months if the AF were aborted.

Our third conclusion is that a security strategy based on the AF has worked these past five years but is unsustainable in the face of continued North Korean firings of long-range missiles, since these firings undermine the necessary support for the AF.

Finally, we concluded that, while North Korea is undergoing terrible economic hardship, these hardships are unlikely to cause the regime to be undermined anytime in the foreseeable future. Therefore, we must deal with the North Korea regime as it is, not as we would wish it to be.

The primary recommendation of the Policy Review was that the allies should establish two alternative strategies. If North Korea is willing to forgo its LRM programme as well as its nuclear weapon programme, we should be willing to move in a step-by-step path to a comprehensive normalization of relations, including the establishment of a permanent peace. Alternatively, if North Korea demonstrates by its actions that it is not willing to remove the threat, we must take actions to contain the threat.

Threat containment is expensive and dangerous, so obviously the first strategy is preferred, but the USA cannot unilaterally enforce the first strategy. This strategy requires continued support of the AF by the US Congress and the Korean and Japanese Parliaments, and I believe that we will get that support, as long as North Korea continues to exercise restraint on LRMs as well as nuclear weapons. Also, successful execution of either strategy requires full

participation of the governments of Japan and South Korea, and I believe that we will have that full participation. During the course of this policy review, our three governments have worked together more closely than ever before, and I believe that this tripartite cooperation will endure into the future and be applied to other problems in the region as well.

Of course, the viability of the first strategy depends on full cooperation from North Korea. To determine whether that cooperation would be forthcoming, our policy team scheduled a trip to North Korea in late May. We were received with great courtesy and held extensive and serious discussions. While we disagreed on many issues, the talks were constructive and entirely without polemics.

Our visit had four goals.

Goal 1—Make meaningful contact with senior North Korean officials, to establish a base for future discussions. That goal was achieved.

Goal 2—Nail down a continuation of the nuclear restraint which had been established in the AF. That goal was achieved, with both sides reaffirming the principles of the AF. Critical to that agreement was the visit by an expert team to Kumchang-ni, which established that this site was not suitable for the installation of a nuclear reactor and processor.

Goal 3—Explore whether North Korea had an interest in going down a path to normalization. That goal was partially achieved since it was clear that it was interested but not clear that it was prepared to take that step.

Goal 4—Explore whether North Korea was willing to forgo its LRM programme and begin moving with us down a path to normal relations. North Korea was not able to agree to that goal while we were in Pyongyang. It was clear that they regarded their LRM programme as important, for reasons of security, prestige and, of course, hard currency. It was also clear that they understood our position that these missiles were an impediment to normal relations.

As we departed Pyongyang, we left North Korea with an explicit proposition: we were willing to take a first step—the easing of certain sanctions to create the right environment for normalization talks. Would they be willing to take a critical first step, forgoing the Taepo Dong II test that was then in preparation? We explained that our goal was to negotiate the Missile Technology Control Regime for North Korea, but suspending missile testing was the logical first step.

The answer to this proposition was given just two weeks before this paper was written in a meeting in Berlin where the first positive step was taken. It was a small step, but it was positive, and I believe that it will lead to definitive actions in the weeks ahead. Let me be clear: much more remains to be done, but we have started, and I believe that this step could, in time, lead to a prevention of war, by facilitating the removal of WMD from the Korean peninsula. I also believe that, as this threat is being removed, a better environment

will be created which will make all other problems on the Korean peninsula easier to resolve. Indeed, I believe that the small step forward we are taking is the beginning of a path to normalization, which after decades of insecurity will finally lead to a Korean peninsula that is secure, stable and prosperous.

#### IV. Conclusion

These three examples of major security problems make the point that there are real, not academic dangers that threats of global war could re-emerge and that we need a new way of thinking about our security; new security policies which focus on preventing major threats—threats like those we faced in the cold war—from re-emerging.

As we rethink our security objectives, we should be guided by Elie Wiesel, who wrote: 'Peace is not God's gift to his creatures. Peace is our gift to each other'. That is, peace will not just happen. It is not the natural order of things. We have to work together to make it happen—to build a secure and safe world for our children.

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## 4. Observations on arms control in a new security environment

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*Anders Bjurner*

### I. Introduction

It is trite to say that our security environment has changed greatly since the end of the cold war. The main change is that there is no longer the threat of a global war. While not necessarily ended, the adversarial relationship between the main actors of that period has softened, and communications and cooperation between them have improved fundamentally. Between actors on the two sides of the cold war divide, the relationship has, in most cases, radically changed to one of a pronounced community of interests and often even values. Cooperation and integration are partly replacing deterrence as the basis for security. The concept of common and comprehensive security is gradually and in some regions actually becoming a reality. The fear of nuclear devastation has faded.

In the past decade an unprecedented number of arms control and disarmament agreements have been achieved, for example, the 1991 and 1993 Strategic Arms Reduction Treaties (START I and II, respectively), the indefinite extension of the 1968 Non-Proliferation Treaty (NPT), the conclusion of the 1996 Comprehensive Nuclear Test-Ban Treaty (CTBT) and the actual moratoria on testing observed by the five declared nuclear weapon states, the nuclear weapon-free zone treaties for Africa and South-East Asia, and the 1993 Chemical Weapons Convention (CWC) and its ground-breaking mechanisms for verification. The 1997 Anti-Personnel Mines Convention and the International Atomic Energy Agency's safeguards agreements are other agreements of the greatest value to our global and human security.

In Europe, the 1990 Treaty on Conventional Armed Forces in Europe is already well on its way to being adapted, the confidence- and security-building regime has been further developed, and the Organization for Security and Co-operation in Europe has been set up. The new subregional cooperation arrangements have enhanced confidence and security in Europe, not least in our own region of Northern Europe.

### II. Old and new challenges

So why is this positive picture not complete or, I might say, not true? The fear of nuclear devastation may have faded, but the risks of the possible use of nuclear weapons are still a grim reality. Thousands of strategic nuclear

weapons remain on hair-trigger alert. The START process has partly stalled because of the reluctance on the part of the Russian Duma to ratify the START II Treaty. The ratification process has lately been further complicated by developments relating to *inter alia* Iraq and Kosovo. Plans for national missile defence systems cause great concern. Deployment of such systems in the future would have a negative impact on disarmament and non-proliferation. Moreover, a most disquieting tendency has appeared in recent years whereby nuclear weapons are assigned new roles. In the wake of declining conventional capabilities, Russia has given more prominence to these weapons in its defence planning. In other quarters, the notion has surfaced of possible retaliation with nuclear weapons against attacks involving other weapons of mass destruction.

At the same time, India and Pakistan have openly engaged in a dangerous pursuit of nuclear weapons and missile development. This is a serious setback to the international nuclear disarmament and non-proliferation efforts. It contrasts starkly with such positive previous developments as the conclusion of the CTBT and the adherence of Argentina, Brazil and South Africa to the NPT. Furthermore, in the fragmenting and multipolar world of today other states, marked by unstable and/or obscure one-man rule structures, may be tempted to follow suit. Two cases in point are Iraq and North Korea, and new actors have joined in. The eroded power and loss of control of central government, corruption or inadvertent dispersal of nuclear materials, technology and scientists constitute a significant threat that nuclear weapons will end up in the hands of states not complying with their international non-proliferation obligations.

There is also a considerable new danger that nuclear capabilities and actual possession of workable devices will spread to groups of terrorists, drug lords and other organized criminal groups that are often already well supplied not only with small arms and light weapons but also with more sophisticated heavy equipment. New technologies and more open borders have added to that danger.

Large numbers of conventional arms continue to be transferred to, above all, developing countries. In particular the destabilizing accumulations and uncontrolled spread of small arms and light weapons today fuel an alarming number of ongoing conflicts, most of them internal in nature but often with serious external effects.

Protection against external aggression naturally continues to be an essential objective of governments, but the challenges to the security of perhaps most states today are more complex and often have to do with threats that affect human security, such as access to and use of natural resources, resource depletion, extreme deprivation, large-scale flows of migrants or refugees, ethnic conflicts, and gross violations of human rights and democratic principles.

While the fear of large-scale interstate conflicts and use of nuclear arms have faded, the number of 'limited' armed conflicts—mostly intra-state—have caused immense human suffering. It has been calculated that no fewer than

6 million people, mainly civilians, have died in armed conflicts since the end of the cold war. Preventing armed conflicts is thus a human, economic, political and, indeed, moral imperative. We need a new culture of prevention and new institutions, instruments and probably norms. A broad range of diplomatic, political, economic, legal and even military measures of prevention have to be developed. Arms control has been and should be one of the major instruments of conflict prevention.

While it seems clear that a more sophisticated security analysis is needed in this new environment and, I believe, is in fact being made in a number of countries, states continue to rely primarily on military hardware for their security. The impression that states with nuclear weapons intend to continue to rely on possessing them has contributed to the assessment by others—states or non-state actors—that they are useful and to their ambition to acquire them. We do not believe this has improved anyone's security. Nor has it helped non-proliferation.

Undoubtedly, much progress has taken place in the global security system and in various parts of the world. However, we have experienced many setbacks, and new concerns and risks are added at both the domestic and international level. On the whole it is difficult to state that international security has made significant progress since the end of the cold war—in particular if one looks at the daily human realities. The end of the cold war seems to be over. We must, I believe, more seriously and more structurally adapt to that reality.

### III. Towards a comprehensive and global non-proliferation regime

I am convinced that there is broad agreement about the importance of keeping non-proliferation alive and making it universal. There is a distinct relationship between a nuclear disarmament process and the successful maintenance and extension of a global non-proliferation regime. As long as there are nuclear weapons, evidently the risk of proliferation is there. The only complete defence is the elimination of nuclear weapons. A prerequisite for progress towards the total elimination of nuclear weapons is the existence of a strong, comprehensive, global non-proliferation regime. We must, therefore, continue to strengthen the NPT, the CWC and the 1972 Biological and Toxin Weapons Convention (BTWC).

The close relationship between nuclear disarmament and non-proliferation works both ways. This is particularly clear when it comes to the credibility of the NPT. The political essence of that treaty is that 183 states have undertaken to refrain from nuclear weapons and, in return, the five nuclear weapon states have committed themselves to a process of nuclear disarmament. This process must be more visible. Above all, it must not be allowed to stop. In the New



Agenda Coalition<sup>1</sup> we wish to highlight this political relationship between non-proliferation and the need for an ongoing nuclear disarmament process—a need for new momentum with realistic, balanced and concrete steps. Our resolution was a breakthrough at last year's UN General Assembly.<sup>2</sup> It will be followed up this year.

It is important to do everything we can to bring the CTBT into force as soon as possible. Ratification by the three nuclear weapon states which have not yet done so would be of particular importance. The upcoming Article XIV Conference offers a timely opportunity to renew international efforts for the early entry into force of the treaty. I believe that a lot of political effort will be needed. Even before the entry into force is formally achieved, however, we need to ensure that the verification machinery is in place and operational and that the organization set up to monitor treaty implementation is able to work smoothly.

#### IV. A new agenda

In the same vein, the highest priority should be attached to finally getting the negotiations started on a nuclear fissile material cut-off agreement. Sweden considers that the negotiation modalities agreed upon last year, based on the Shannon mandate, were sufficient and regret that, owing to artificial linkages, negotiations on that agreed basis have not been allowed to move forward in the Conference on Disarmament (CD) since then.

Both politically and technically, the call for de-alerting as an interim measure has been controversial. However, as a minimum a serious examination by the nuclear weapon states to find possible balances and a verifiable process of de-alerting are important. We are convinced that there is a way forward to taking important steps on de-alerting.

Another area where I believe we have to find a way forward concerns the need for an agreement to protect our outer space assets. We all depend on both civilian and military assets in that environment. For instance, there is a need to preserve our space-based capability to verify that arms control, disarmament and non-proliferation agreements are complied with. The inability to start any discussion on this vital theme at the CD is very discouraging. Without having an answer, I ask myself if there are other ways to move in this area.

Progress in the CD and other disarmament forums is also jeopardized by the volatile situation in the Far East region, which causes several countries to pursue the development and acquisition of missiles for stated defensive purposes. This, in turn, threatens the delicate balance that forms the basis for such fundamental arms limitation and disarmament treaties as the 1972 Anti-Ballistic Missile Treaty and the START treaties. This situation calls for maximum

<sup>1</sup> See, e.g., URL <<http://www.acronym.org.uk/41unga.htm>>.

<sup>2</sup> The text of the resolution is available at URL <<http://www.un.org/documents/ga/res/54/a54r054.pdf>>.

restraint by the countries concerned and an appropriate handling of the problematic situation involving North Korea, where the recent progress in this regard should be welcomed. Sweden is participating, along with our partners in the European Union, in the Korean Peninsula Energy Development Organization programme.

The connection between non-proliferation and disarmament is also illustrated by the CWC. Reaching agreement on it was indeed a great advance in both respects. Now we are in the early days of implementing it. Apart from obvious humanitarian reasons, we, for our part, were guided through the many years of negotiations by overarching security policy objectives. Although the security environment has changed in many ways, these objectives still pertain. The functioning of the organization set up for the implementation of the CWC must not be hobbled by a loss of vision among some of its most important member states. Nuclear weapons also cast a shadow over the CWC. Several important countries, particularly in the Middle East, have remained outside it. Making the CWC truly universal, and ensuring the timely implementation by all parties of all their commitments, must be high priorities.

Another sign of the loss of disarmament momentum is the difficulties we are experiencing in the Geneva negotiations on a verification protocol to the BTWC. Admittedly, verification in this area is a complex undertaking but it is of utmost importance. The lack of an effective verification regime seriously hampers it. Technological developments, new unscrupulous terrorist organizations and more liberal trans-border movements during recent years have underscored this vital aspect of the convention. We must do all we can to design a verification regime that will help to minimize the risk of proliferation. Sweden believes four key elements to be vital in the protocol: declarations, visits, investigations and a small, cost-effective organization. It is essential that the protocol comprises on-site measures with respect to declared facilities. A careful balance has to be struck between credible verification of compliance with the convention and the need to avoid an undue burden on industry and protecting proprietary information. I am convinced that, in order to achieve a credible regime, it is necessary to include a transparency system of randomly selected visits to declared facilities as a follow-up to declarations. Without a mechanism of that kind we doubt that compliance with the BTWC can be monitored.

Serious security as well as humanitarian problems arise in connection with the proliferation and unrestrained use of small arms and light weapons. According to some estimates, there are more than 500 million small arms and light weapons in existence worldwide, and more than 70 countries manufacture them. While the largest numbers are still manufactured on an industrial scale in the developed countries, most of the manufacturing countries are in the developing world. A large number of these weapons are in uncontrolled circulation around the world. These weapons are the primary or sole tools of violence in the majority of the armed conflicts taking place today, particularly

in conflicts involving irregular troops and where a high proportion of the casualties are civilians, including large numbers of children among the victims. This year, more than 300 000 children under 16 years of age are estimated to have been exploited as participants in armed conflicts using these weapons. Apart from millions of deaths, this has resulted in the displacement of populations and large flows of refugees, severely impacting on the security of neighbouring countries and whole regions. The uncontrolled accumulation and circulation of small arms and light weapons are a major source of insecurity also because they seriously undermine the credibility and realization of peace agreements.

From the perspective of the Swedish Government there are, in particular, four areas of small arms in which we should like to pursue further work: (a) practical, concrete support for national or regional prevention and reduction measures; (b) the management of small arms in post-conflict management and conflict prevention situations—in the context of peace settlements it is vital to be able to collect, safely store and preferably destroy small arms and light weapons for the consolidation of peace, the restoration of citizen security and post-conflict reconstruction; (c) normative work in different international forums, *inter alia* to ensure that small arms and light weapons are transferred for legitimate purposes only and that they only end up in the hands of legitimate authorities; and (d) transparency measures, for instance, an international database on various methods of marking small arms and weapons.

With these few observations I have only skimmed part of the complex and dangerously slowed down disarmament and arms control agenda for the next couple of years. I look forward to the discussion in this forum.

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## 5. Objective and limits of arms control in the new security environment

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*Vladimir Baranovsky*

### I. Introduction

In the most general sense, the objectives of arms control are by and large always the same—at the time of the Hague Conferences 100 years ago, during the four decades of the global East–West confrontation and in the post-cold war era. Indeed, at the level of the international system, arms control efforts are aimed at making this system more stable, both globally and in its separate segments. At the national level, the goal is to make military security less expensive and more reliable by cooperative measures, that is, together with potential opponents rather than unilaterally and against them.

It is also clear that no state would consider arms control policy as a value per se; it is inscribed in the broader framework of the state's national strategy, with the latter having indisputable priority. This means that arms control could be sacrificed to more important national goals, such as ensuring a higher level of security for the state or promoting its international influence. There could always be arguments in favour of achieving such goals unilaterally rather than in cooperation with potential external opponents. How perceived national goals and the international environment interact is a crucial question for the development of arms control.

The overcoming of the cold war has certainly created a new international environment, as well as strong incentives for reconsidering national goals. In other words, both parts of the arms control equation have been affected. This requires reassessment of both the focus of arms control and its main vectors. The problem is that, even before such reassessment took place (or, at least, before it was accomplished and began to be implemented in practical policy), the international environment seemed to be beginning to change, this time in the opposite direction.

In fact, the window of opportunity for launching a new arms control agenda that seemed open at the beginning of the post-cold war era was not fully used. Indeed, approximately from the mid-1990s, relations between Russia and the West started to experience serious (and increasing) strains, with confrontational elements becoming more and more prominent again. Whatever the sources of such a development might be, one of its first victims could become (or has already become) the area of arms control.

Moreover, not only the future of arms control is under threat, but also its considerable achievements. Using the notion of *acquis communautaire* in the

practice of the European Union (EU), we can say that the arms control *acquis* could erode significantly, if not irreversibly. The troublesome uncertainty about the future of the 1972 Anti-Ballistic Missile Treaty (ABM Treaty) clearly exemplifies the prospect of such an erosion.

To prevent such developments from occurring, it is expedient to focus arms control efforts on a number of key issues. Three major themes seem to be of primary importance in this respect: the nuclear dimension, the regional dimension and international regulation.

## II. The nuclear dimension

The first theme concerns the situation in the area of nuclear weapons, where the international community is facing a real crisis. The two main components of this crisis concern (a) relations between former nuclear opponents, and (b) nuclear proliferation.

There is a troubling paradox in the recent development of relations between Russia and the USA in the sphere of nuclear weapons. On the one hand, they seem to have entered a new era, orienting towards non-confrontational interaction. Within this model, the very logic of nuclear deterrence or mutual assured destruction is irrelevant (just as it is absent in the relations between the UK and the USA, or between France and the USA, or between France and the UK). On the other hand, it is not clear to what extent this transition to a post-confrontation era is irreversible (and whether it is irreversible at all). Recent developments around Kosovo have given substance to speculation in this regard.

The result is that both Russia and the USA appear to be living simultaneously both in the past and in the future. Each of them declares (and may increasingly believe) that the former nuclear opponent is no longer considered as an enemy *par excellence*; at the same time, both know that they are able to destroy each other completely, and both prefer to maintain nuclear weapons and effective means of delivering them as an ultimate guarantee against this eventuality. Remarkable 'old thinking' in prioritizing the consolidation of the second-strike potential goes in parallel with the interest in the idea of joint global protection against nuclear strikes, which may be clearly interpreted as a sign of future-oriented 'new thinking' in this area.

However, these two models, or two ways of thinking, clearly contradict each other. They could coexist for some time, but only against the benign overall background of the political relations between the two countries. Meanwhile, this background seems to become increasingly unfavourable. In any case, such 'coexistence' is only possible as a transitional phenomenon, and maintaining it is fraught with increasing confusion, both conceptual and in terms of strategic planning.

In the case of Russia, this confusion is only aggravated by uncertainty about the role of nuclear weapons. At the beginning of the 1990s, it was fashionable

to predict that this role was becoming marginal. Then, the trend turned 180 degrees: it was concluded that the relative weight of the nuclear factor should be increased in order to compensate for the dramatic weakening of general-purpose forces. This reassessment was only reinforced by the developments around Kosovo: in Russia (and not only in Russia) many people believe that, if Yugoslav President Slobodan Milosevic had had nuclear weapons, teaching him democracy with air strikes might have been much more problematic, if possible at all.

This brings us to another source of increasing confusion—the issue of nuclear proliferation. Indeed, if the declared nuclear states still consider nuclear weapons as an important tool ensuring their security, it is not clear why other states should refrain from possessing nuclear weapons. Even if this logic goes back to the early years of the nuclear era and may be considered simplistic, this does not make it irrelevant. Unfortunately, the results of this simplistic logic do not amount to pure speculation; on the contrary, they are very real and indeed dramatic.

Warnings about the threat of nuclear proliferation go back to the time when the 1968 Non-Proliferation Treaty (NPT) was being negotiated and concluded. However, these warnings remained unconfirmed for so long that the sensitivity of the problem almost evaporated. Indeed, for three decades we have become accustomed to living with this threat, up to the point of considering it as a kind of ‘virtual reality’.

The fact that this reality ceased to be ‘virtual’ represents the most spectacular failure in all the history of arms control efforts and the most serious challenge to its future since there is nothing to prevent the list of nuclear states from becoming longer. Nor are there any reasons to expect that nuclear weapons will be marginalized, as has happened in Europe. The validity of this argument is dubious because it is crystal clear that nuclear trends are different in various regional contexts.

It is true that the role of the nuclear factor has diminished in Europe (where the total number of nuclear weapons has decreased by 70 per cent), as well as on the level of Russian–US relations. In Asia and the Middle East, however, the developments go in the opposite direction: China is increasing its nuclear potential, India and Pakistan have become *de facto* nuclear weapon states, Israel maintains this status unofficially, Iraq and North Korea are blamed for not abiding by their NPT commitments, Iran is suspected of aiming to go nuclear, Japan and Taiwan have a latent capability to produce nuclear weapons quickly (and might have incentives to do so), and so on. In fact, if in Europe the 20th century has ended with the fall of the Berlin Wall, in Asia the nuclear tests conducted in May 1998 have marked the beginning of the 21st century, which has considerable chances to become the century of the nuclear arms race in Asia.<sup>1</sup>

<sup>1</sup> See, e.g., Delpech, T., ‘Nuclear weapons and the “new world order”: early warning from Asia?’, *Survival*, vol. 40, no. 4 (winter 1998/99), pp. 57–76.

Against this background, what should be the objectives of arms control in the nuclear field? They may be defined in the following way: (a) in the immediate future, *maintaining* the nuclear arms control pattern; (b) *expanding* it in the medium-range perspective; and (c) *reassessing* the fundamental elements of nuclear deterrence in the longer run.

First, it is expedient to prevent the collapse of the arms control regime that has structured, even if not in a sustainable way, the situation in the field of the nuclear arms race. This includes: (a) ratifying and implementing the 1993 Strategic Arms Reduction Treaty (START II) and the 1996 Comprehensive Nuclear Test-Ban Treaty (or at least, and more realistically, observing their provisions); (b) negotiating a START III accord; (c) preserving the cooperative regime in the area of strategic ballistic missile defence (even if this requires adaptation of the ABM Treaty); and (d) addressing the issue of tactical nuclear weapons (which have only been subject to unilateral commitments rather than any negotiated agreements, and even these commitments seem to be eroding). It is clear that the ultimate responsibility here lies with Russia and the USA.

Second, nuclear arms control should cease to be the exclusive domain of two powers. It is true that this exclusivity provides Russia and the USA with a special international status that both seem to be reluctant to give up. However, they should assess their interest in involving other nuclear weapon states; failure to do so might gradually destroy nuclear arms control irreversibly. Indeed, some of the existing or prospective measures for regulating developments in the area of nuclear weapons will soon be irrelevant if the 'junior members' of the nuclear club are not involved. Even more important is promoting their accountability, responsibility and self-restraint as the price to be paid for overcoming their second-rank status.

In this sense, the primary task is to engage China in negotiations and efforts aimed at preventing destabilizing developments in the nuclear weapons-related area. Whatever the implications might be of the forthcoming rise of China to the status of superpower in the 21st century, this process will be more smooth and less challenging if it is not coupled with the country's non-participation in nuclear arms control.

Finding appropriate arrangements with India and Pakistan represents another serious task in the context of expanding nuclear arms control efforts. Indeed, this is no longer an issue of non-proliferation: the 'old' nuclear weapon states have no choice but to accommodate to the new situation and acknowledge reality. Whether (and how) to react to the challenging policy of those who have preferred to disregard all non-proliferation warnings is another question. The option of reacting does not seem very practical and has no solid foundation in international law; the option of not reacting would nullify the validity of the non-proliferation regime and call into question the ability of its proponents to implement it.

There is no way of squaring this circle other than inscribing the task, both politically and analytically, into a broader and longer-term objective, the third

one in the context of the present analysis—to reassess in a fundamental way the issue of nuclear weapons and their role in maintaining international security. Such reassessment, if defined in a very general way, should go along the following lines: (a) developing unprecedented transparency of nuclear arsenals; (b) making them mutually compatible, up to establishing joint command structures (at the beginning, with respect to some elements of nuclear arsenals); and (c) introducing (even if slowly) a regime of internationalization with respect to nuclear weapons.

However absurd and unrealistic such recommendations might seem now, they represent the only means of stopping proliferation and preventing it from becoming epidemic. More importantly, they open the way towards overcoming the existential absurdity of nuclear weapons by turning them into an instrument for maintaining international stability rather than ensuring the security only of those who possess them.

### III. The regional dimension

The second big theme for reflections about the future of arms control could be defined as the necessity of its de-globalization. Re-focusing arms control along this line seems to become increasingly imperative.

Indeed, numerous challenges, both actual and potential, are emerging on the regional level and even in the local context rather than in the global system. These are interstate low-intensity conflicts, trans-border conflict-generating activities, intra-state conflicts, regional arms races, and so on. There are at least two reasons for paying special attention to such conflicts: (a) they are becoming more numerous and less contained by external factors in the post-cold war world, less structured and more poorly organized than in the period of the global East–West confrontation; and (b) because they are relatively limited in terms of magnitude and eventual international implications, the ‘large-format’ arms control agreements affect them to a very insignificant extent (if at all).

To make arms control efforts more practical, they have to be concentrated on the concrete contentious issues that generate or aggravate regional instabilities. Failure to do so carries the very real risk of undermining any conflict settlement below the global level. Noteworthy in this respect is the example of the 1996 Florence Agreement. True, it has not become a panacea and has not made the 1995 Dayton Agreement invulnerable to criticism; but the Florence Agreement, by establishing limits on five categories of weapons and personnel for three post-socialist Yugoslavian states (Bosnia and Herzegovina, Croatia and the Federal Republic of Yugoslavia), effectively prevented a military imbalance in the region which would almost certainly have had significant destabilizing consequences. In the case of Kosovo, this component is missing—which might become one of the factors undermining the sustainability of



the settlement. Nagorno-Karabakh is another notorious example where regional arms control is needed to reinforce eventual political arrangements.

Meanwhile, regional arms control efforts are by no means a subject of excessive attention on the part of politicians and analysts. It is true that the list of successes is not long, but there are some interesting cases giving some ground for optimism. One of them is represented by the 1996 and 1997 confidence-building and troop reduction agreements between China, Russia and three Central Asian states; the fact that this 'five-lateral' pattern has continued afterwards points to a certain sustainability of the model, which starts with regional arms control, to pave the way for broader cooperative interaction. In this context, similar bilateral patterns also deserve attention, such as the Agreement on Confidence-Building Measures in the Military Field along the Line of Control in the India–China Border Areas reached between China and India in 1996.

Other examples are less inspiring. Thus, there have been a number of regional arms reduction, arms control and confidence-building measures negotiated and even agreed upon in Central America, but the question of their implementation remains open. The same is to be said about the arms control dimension of the peace negotiations in the Middle East. The Association of South-East Asian Nations Regional Forum seems to be more coherent in its orientation towards developing regional confidence-building measures. In this last case, however, regional efforts go in parallel with the unprecedented arms race that is taking place in the region. This indicates a traditional dilemma in the context of arms control: should it be aimed at minimizing the scope of confrontation or rather at preventing the arms race?

#### IV. Moving towards international regulation

This brings us to the third major theme, touching on control of the arms trade and military technology supplies with the obvious objective of preventing eventual destabilizing effects. Here, the situation seems quite paradoxical. On the one hand, there is significantly developed international cooperation, with various patterns and institutions; six multilateral structures (if the EU procedures are included) represent a more developed framework than in any other single arms control area. On the other hand, the result of their functioning is not very clear, if not disappointing.

Saddam Hussein's Iraq is the best example of the poor effectiveness of this cooperation; indeed, Baghdad turned out to be much closer to possessing a militarily significant weapons of mass destruction potential than was anticipated. Regrettably, whether this lesson has been adequately learned is by no means obvious. Technological advances may open the way for circumventing eventual restrictions and obstacles and aggravate the situation: rapid developments in biotechnology and genetic engineering facilitate the possession of

biological weapons within one to two years, although they are banned by the 1972 Biological and Toxin Weapons Convention.

Each of the existing multilateral structures represents a framework for consultations and some coordination, rather than a regime in the making. They may set principles and define guidelines, without, however, producing joint policy. Even when there is something approaching collective decisions, their implementation is left to the discretion of the member states (even in the case of the EU).

Meanwhile, it is clear that concrete decisions on the national level would inevitably have various components. Each state may proceed from its own legitimate interests concerning, for instance, defence policy, foreign policy, economic policy or industrial policy; but the eventual compromise between them does not necessarily reflect the requirements for strengthening international security. On the contrary, it may directly conflict with such requirements. In other words, the existing paradigm does not give priority to efforts aimed at minimizing the destabilizing consequences of the arms trade and military technology supplies, making the erosion of such efforts almost inevitable.

To stop this trend, there is a need to gradually move from consultation and exchange of information towards international regulation, with decisions becoming more binding and more intrusive. This is not only a complicated task—it is also a very unpopular one. Everywhere, both in Russia and in the Western countries, corporate interests are strongly oriented against making decisions more transparent and internationally accountable. It is the responsibility of the political leaderships to inscribe these particular interests into a broader context; and not all political regimes, even the most democratic ones, are able to pass this test of political maturity.

If they do not move in this direction, the suppliers of arms and military technologies to the world market are doomed to cultivate new strains within the emerging international system. Afterwards, some will be using air strikes against new Saddam Husseins, rightly considering them potential aggressors, whereas others will be regarding this as a violation of international law—and with full justification.

By and large, there is a risk that arms control may be entering a gloomy period. The trend towards prioritizing national goals, alongside worrisome symptoms of multiplying regional tensions and global neo- (or quasi-) confrontation, might erode the whole logic of cooperative efforts. In order to make such efforts successful, there is a need to inscribe them into a new paradigm of arms control. The key words of such a paradigm should be transparency, accountability, intrusiveness, binding commitments and international regulation, gradually evolving towards transnational and even supranational regulation. This may seem excessively ambitious and unrealistic, but setting ambitious goals may be expedient in order not to lose what has already been achieved and to move on.

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## 6. Good guys, bad guys and arms control

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*Richard N. Perle*

### I. Introduction

I should like to begin my remarks by thanking Dr Adam Daniel Rotfeld and his colleagues for including me in this important gathering. It is a tribute to the open-mindedness—I am tempted to say courage—of SIPRI's current leadership that you have seen fit to invite a long-time critic of the theory and practice of arms control to address you on the objectives and limits of arms control in the new security environment. I hope you will not consider it an act of ingratitude if I approach the subject with the same doubts and reservations that I have harboured—with increasing conviction—for many years.

From my student days in California in the early 1960s, when my friend and mentor Albert Wohlstetter sparked my interest in strategic policy and arms control, I have been sceptical of agreements aimed at regulating conflicts among adversaries. It has seemed to me that when agreements were most useful—that is, when the danger of hostility leading to war was greatest, they were least obtainable, and when they were most attainable, they were least useful. (The current Russian–US impasse over the 1993 Strategic Arms Reduction Treaty—START II Treaty—may contradict this principle: an agreement there may not be very useful and difficult to attain.)

Many advocates of arms control acknowledge its limitations but argue that it is far better to reach imperfect agreements than to have none at all. Indeed, the conventional wisdom about arms control has held that *any* agreement was better than none, that deadlocked arms negotiations meant failure, and that 'tough' and demanding negotiating proposals were a form of disguised opposition to arms control itself. I will never forget the anger with which the vast majority of arms control enthusiasts greeted President Ronald Reagan's 'zero option' in 1981. They were convinced that the USA had disingenuously offered the Soviet Union a deal it could never accept because the USA was opposed to reaching any agreement with Moscow. Proposals for deep cuts in the Soviet and US strategic forces in the 1970s, by such tough-minded figures as the late Senator Henry M. Jackson, were similarly dismissed as mere ploys intended to wreck the prospects for arms control. Even now, opposition to arms control agreements that are unverifiable, like the 1993 Chemical Weapons Convention (CWC) or the 1996 Comprehensive Nuclear Test-Ban Treaty, is frequently characterized as disguised opposition to the very process of arms control.

## II. The cold war period

If we are to think clearly about arms control in the ‘new’ security environment, it is essential that we understand how arms control has worked in the immediate past, in the ‘old’ security environment. Happily, our prospects for understanding the results of arms control agreements in the half-century of the cold war are greatly improved by the end of the cold war and the collapse of the Soviet Union.

The end of the cold war opens the way to objectivity and perspective in judging a subject that has been afflicted by every manner of ideological passion, official dissembling and political manipulation. The collapse of the Soviet Union has freed at least some participants in the process to speak and write openly about the past. Thus we can review the recent history of arms control with the certain knowledge that Soviet strategic forces grew rapidly following the 1972 Strategic Arms Limitation Treaty (SALT I Agreement) ‘freeze’, that the radar at Krasnoyarsk was indeed a violation of the 1972 Anti-Ballistic Missile Treaty (ABM Treaty), and that the deaths in Sverdlovsk in 1984 resulted from an accident at a Soviet biological weapons facility, not from a natural outbreak of anthrax.

Let me be clear about my own view. I believe that the most important arms control agreements of the cold war failed to achieve their principal intended purpose, which I take to have been the mitigation of a competition in amassing weapons, especially nuclear weapons.

The agreements reached in the last few years of the cold war, especially the 1991 and 1993 Strategic Arms Reduction Treaties (START I and II, respectively), largely codified the decline in the number of strategic weapons that the USA and the USSR considered—arms control apart—necessary for their security. There is little evidence, if any, that the underlying capability of the strategic weapon programme of either the USA or the USSR was significantly affected by either START treaty. There were reductions, to be sure, but the level to which the sides agreed to make reductions was comfortably within the level each thought was necessary. What was given up, in short, was surplus, often older weapons that it would have been wise to abandon in any case.

The 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty) may well have been the most useful agreement of the cold war period, but mainly for political rather than military reasons. Ironically, the Soviet SS-20 missile, the deployment of which touched off bitter controversy over the countervailing deployment by NATO of Pershing and cruise missiles, was itself a creature of another arms control arrangement, the SALT I Agreement.

The failure of the ABM Treaty, the SALT I Agreement and the 1979 SALT II Treaty to restrain the growth of nuclear forces was total: in fact, they worsened the military balance by making it more unstable; and these once heralded agreements actually led to—that is, in a significant sense caused—an

intensified competition that channelled the growth of nuclear forces into new areas.

The theoretical desirability of agreements to restrain competition in armaments, to say nothing of their actual use, was, and remains, theoretical; in practice, agreements could, and often did, have unexpected consequences, some of which were quite the opposite of what their proponents desired. Let me give some examples.

First, by banning strategic defences, the ABM Treaty almost certainly encouraged the Soviet Union to increase its strategic offensive forces. With the treaty in place, the USA could not offset Soviet increases in offensive forces by deploying defensive ones. Because the SALT I Agreement, signed the same day as the ABM Treaty, prohibited the building of new intercontinental strategic missiles, the only option open to the USA was to rely on such passive defences as sheltering and mobility—which it did. The Soviet increase in strategic forces following the 1972 agreements was immense: thousands of new warheads deployed on several types of new land- and sea-based missiles. Was it wise to ban defensive systems entirely, leaving the only open avenue of competition a menacing race to develop more effective intercontinental ballistic missiles (ICBMs)? Would Moscow have gone on such a building spree if the USA had been able to respond with interceptors capable of neutralizing it? The USA lowered the bar and in so doing encouraged the Soviet Union to jump.

Second, the SALT I Agreement limited only ballistic missiles of intercontinental range; and it allowed the then existing missiles to be modernized and significantly enlarged. Unable to go on adding ICBMs to its arsenal, the USSR more than doubled the size of its ICBM force by modifying existing missiles to carry much bigger payloads and by replacing smaller missiles with much bigger ones. The USSR also replaced several hundred SS-11 missiles targeted on Europe with a new ICBM, the SS-19. To compensate for the conversion of the SS-11s to multiple-warhead missiles with intercontinental range, the USSR developed and began to deploy the medium-range SS-20 missile—and the rest, as they say, is history.

The development of the SS-20 as a way around the limit on the total number of intercontinental-range missiles is a classic case of arms control producing a result quite the opposite of what one side, at least, had in mind. When Henry Kissinger returned from Moscow with the 1972 agreement, he could not have imagined that it would lead to both the SS-20 and the massive expansion of the Soviet intercontinental missile force.

Third, there can be little doubt that the rapid growth of modern cruise missiles was stimulated by the failure of the SALT II Treaty to limit them as it limited ballistic missiles. 'OK', the reasoning went, 'if we can't have an unrestricted number of missiles that follow a ballistic trajectory to reach their targets, we'll develop missiles that get to the same targets without leaving the earth's atmosphere.'

Thus was the modern cruise missile launched. The point worth remembering is that there are always ways around the strictures and limitations imposed by treaties—and where a matter as sensitive as national security is involved, states will find and use them.

There would be no reason for cataloguing the failures of arms control in the old security environment if past failures were unlikely to be repeated in the new security environment. However, it seems far more likely that the failures of the past resulted from fundamental defects inherent in the nature of arms control. So while the new security environment is different from the old, so must the approach to arms control be different—and in ways that recognize its limitations.

### III. The post-cold war period

The end of the cold war has fundamentally changed the security environment in which future arms control agreements may be reached. Gone is the overarching struggle between the communist and non-communist worlds. Gone, for that matter, is communism itself—a now thoroughly discredited approach to the organization of society. Gone with it, and its Soviet patron, is the fervour that once energized a failing empire with a militarized economy and a willingness to sacrifice well-being at home to the prospect of influence abroad.

What remains is a world far better poised to contain interstate violence, which is no longer so readily fuelled by the exigencies of the cold war. While new and sometimes large-scale brutality continues to beset mankind, seemingly intractable conflicts in Africa and the Middle East have proved amenable to peaceful resolution after the collapse of the Soviet Union and the consequent change in Russian leadership.

The world is much safer today—even though many nuclear weapons remain in the arsenals of the nuclear weapon states—because the Soviet Union no longer exists. With its disappearance, the threat of a global conflagration involving large numbers of nuclear weapons has declined sharply. In the end, what matters are not so much the weapons themselves, but the political context in which they are created and deployed and the character of the regimes that control them. While there is reason to fear smaller, localized conflicts with disastrous consequences for hundreds or thousands of victims, the danger of tens or hundreds of millions perishing in a global war is past. The instruments of mass destruction about which we have become increasingly concerned, especially chemical and biological agents, which are so much easier to obtain than nuclear weapons, lack the scope, reach and reliability of the massive nuclear arsenals that became the most awesome expression of the cold war.

### **Bilateral arms control**

For now at least, the new security environment is marked by the absence of a great-power rivalry. There is nothing in prospect like the half-century-long titanic struggle between the Soviet Union and the USA. For the foreseeable future there is one superpower, the USA, which has shown no inclination to use military force to advance selfish interests. For this reason bilateral arms control no longer commands the attention it did in the old, bipolar security environment, and attention is now focused on multilateral arms control affecting such matters as nuclear testing, the proliferation of chemical and biological weapons, the use of landmines, and the like.

### **Multilateral arms control**

Multilateral arms control differs in several important respects from bilateral arms control as the latter was practised during the cold war. For one thing, the large number of participants who negotiate treaties intended to bind most or even all the countries of the world cannot possibly comprehend the intricacies equally. Some will be better, some less well informed. Those whose plans are such that they will be unaffected by the treaty or convention are bound to see things differently from those whose plans and programmes are impinged upon by the agreements being negotiated.

In multilateral negotiations, some of the participants have interests to protect while others do not—or if they do, those interests may be only remotely affected by a treaty's terms. In one sense, all states have an interest in a convention banning chemical weapons. There is, however, a vast difference between, say, Iceland's interest in such a convention and the interest of, say, Iran, which has been both a victim and a producer of such weapons. The interest of my country is different from that of many others for which the possibility of a chemical weapon attack, or the use of chemical weapons against their forces or installations abroad, is remote. This difference in the depth and salience of one state's interest compared to that of another helps explain why the USA sometimes seems cautious in its approach to multilateral arms control: as a source of wealth and influence and an object of anger and envy, it is invariably more deeply affected than most other countries.

Among the participants in any multilateral arms control negotiation, there will be states which believe that this term or that limitation or some verification provision will enhance their security, while others may believe that their security would be diminished by the same provision. Iraq, for example, may well consider itself threatened by an intrusive verification provision that would not trouble Finland in the least and might be applauded by Kuwait.

It is characteristic of global agreements—which is what those limiting nuclear testing and chemical and biological weapons aspire to be—that they

lump together, under a unitary set of constraints, states that can be counted upon to comply and those which intend to find and use loopholes—or, if that does not work, actually to cheat—to defeat the purpose of the agreement. To make matters worse, states joining global conventions, even if they do so in bad faith, obtain the same treatment as those which join in order to advance the proper purposes of the agreement.

While it was not a treaty as such, there can be little doubt that Indian participation in the Atoms for Peace programme facilitated India's acquisition of nuclear weapons by legitimating the construction of a Canadian-designed reactor from which nuclear material was extracted. We now know that Saddam Hussein made full use of the information provided by Iraqi inspectors under the International Atomic Energy Agency (IAEA) to evade detection in Iraq's clandestine nuclear weapon programme. By learning the sources and methods by which the IAEA attempts to ferret out cheating, Iraqis in the IAEA were better able to circumvent the purpose of the 1968 Non-Proliferation Treaty and the IAEA.

During the US Senate debate on the CWC, a number of senators argued that, by becoming parties to a largely unverifiable agreement, potential violators could expect to learn a great deal about how to conceal their chemical weapon programmes. This concern is bound to recur as agreements are proposed that include both 'the good guys and the bad guys'—if you will allow me to use a term not common in diplomatic parlance but helpful in defining the classes of participants in multilateral agreements.

Good guys and bad guys do not equate exactly to democratic and non-democratic states, but the correlation is close. For one thing, democracies with a political opposition and an inquiring, free press find it difficult if not impossible to violate agreements. Since international agreements achieve legitimacy by the adherence of states, the citizens in states that are parties to agreements are unlikely to approve violations. Totalitarian states, by contrast, have little trouble organizing clandestine cheating. Iraq, North Korea and the Soviet Union, in the old days, all found it easy to violate arms control agreements without fear that they would be found out by the press or the opposition.

In domestic affairs no one would seriously propose that the police and criminals come together and sign agreements according to which they would accept the same set of constraints on their freedom of action. Yet that is the underlying logic of many multilateral arms control arrangements: a compact among nation-states, some of which are current or likely criminals, others—the majority—respectful of international law and their treaty obligations. The importance of this anomaly lies in the increasing extent to which the subjects of arms control in the new security environment—chemical, biological and nuclear weapon proliferation—are largely unverifiable.

The infrastructure necessary for the production of non-military pharmaceutical and chemical products is so similar to that necessary for the production of biological and chemical weapons that it is not difficult to conceal a weapon



programme within an otherwise innocent activity. For this reason, compliance with treaties banning the manufacture of chemical or biological weapons cannot be reliably determined although treaties banning their use probably can be verified. Yet when Iraq used chemical weapons against Iran and then unarmed villagers in the north of Iraq, the international community did nothing. In fact, the response was less than nothing: an urgent international conference in Paris was adjourned after a few days of passionate speeches with no formal mention whatsoever of Iraq's use of nerve gas.

#### IV. The new role of arms control

What role should arms control play in making the world safer? I have four answers.

1. It should do no harm. However, harm is the inevitable result if arms control becomes a substitute for other means of containing threats to the security of nations. The negotiation of elaborate multinational arms control regimes must not become a substitute for individual nations acting to make the world safer, even if such action is unilateral. A good example is Israel's destruction of an Iraqi nuclear reactor in 1981. Had Israel not taken that action, Saddam Hussein's army might still be in Kuwait and possibly well beyond Kuwait.

We should be mindful of the danger that the formal process of arms control may actually diminish the efficacy of informal, ad hoc activities by countries in a position to forestall or disrupt or otherwise contain the threat of proliferation of weapons of mass destruction. Quiet arrangements to embargo critical equipment, or diplomatic or economic pressure exerted bilaterally or by a small number of like-minded states, may well prove more effective than the cumbersome machinery of the international community as a whole, especially when there is controversy and facts are difficult to establish openly. A formal treaty regime must not be allowed to pre-empt other activities to prevent or punish violations. The claim by a possible violator that the only legitimate recourse lies in the formal procedures of an international regime must be firmly rejected. If arms control arrangements are to do no harm, we must not repeat the mistake of inviting obvious offenders, like Iraq, to participate in ways that would help them undermine the purposes of the agreements they may choose, for tactical reasons, to sign.

2. We must understand that limitations on the use or manufacture of specific weapon systems have broad and varied implications, some of which may argue for treaty constraints while others may argue against them. Where the weapons in question elicit powerful emotions, we may do things that make us feel good but have potentially damaging consequences.

Take the case of a ban on landmines, for example. Anti-personnel landmines can certainly do terrible damage; and the idea of civilians killed and maimed by landmines was so abhorrent that the international community was propelled

towards a convention banning them. However, this is a ban that is almost certain to be violated and it cannot possibly be verified.

Had it agreed to be bound by a convention, the USA would unquestionably have honoured its commitment. This would have precluded us from using mines in a variety of ways that have the potential to discourage military actions—providing perimeter defences of refugee areas, for example—or to reduce casualties in combat situations or otherwise save lives. The USA is certainly responsible enough to remove landmines when they no longer serve a useful military purpose. Indeed, the USA, concerned about the potential of unintended damage from landmines, has developed a class of such mines that disarm themselves after their military mission has ceased.

Unsophisticated landmines are cheap and easy to produce and a ban on their production cannot be adequately verified. Those who have used landmines in a way that gave rise to the concern about them will not be constrained by an international convention banning them. Moreover, they will have no incentive to turn to advanced-technology mines of the sort the USA provides for itself and could provide to others. A multilateral convention that of necessity treats all states alike with respect to the manufacture and use of landmines is another instance of the pitfalls of arms control that fails to distinguish between the effects of international legislation on good guys and bad guys.

The ABM Treaty is another example of a treaty that precludes action that could make the world safer. Signed nearly three decades ago, it prohibits the deployment of national defences. Yet the new security environment, in which such outlaw states as Iraq and North Korea and other dangerous states like Iran are aggressively trying to acquire ballistic missiles, makes it prudent for us to build defensive systems to protect ourselves. The ABM Treaty was never intended by either of its original parties to prevent such prudent protection. Legal scholars have made a powerful case that the ABM Treaty—as a two-party agreement—lapsed automatically when the Soviet Union became extinct. In any event, it is time to recognize that the new security environment, whatever one thought about the old, requires that we deploy a robust defence against ballistic missiles.

3. We should recognize that many treaty constraints that would be desirable if honoured are not desirable where there can be no assurance of compliance. Treaties that cannot be verified are in general a bad idea.

4. We must recognize that the world will be a safer place when countries that respect the rights of others are more powerful than those that do not. However high-minded their purpose, agreements that weaken the Western democracies relative to states that support terror or launch wars of aggression are foolish excursions that allow statesmen to feel good while they are actually doing bad.

The intellectual architecture of arms control is dominated by theories in which the behaviour of 'Country A' is examined in relation to that of 'Country B'. Most often A and B are, implicitly at least, substitutable, one for the other, but in the real world there is no 'Country A' and there is no 'Country B'. There are states with distinctive histories, traditions, character and power. Some are peaceful, others not. Theories that obscure this distinction are wrong and policies built on those theories will surely fail.

The real problem in world affairs is aggression. It is, in important respects, similar to that terrible problem in domestic affairs, violent crime. In both cases the essence of the problem is not weapons as such but power in the hands of aggressors and criminals. The failure to distinguish between guns in the hands of the cops and guns in the hands of the robbers is not just a practical absurdity; it is a profound moral failure.



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Part II

The role of major powers

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## 7. Major powers and arms control: a Russian perspective

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*Yuri K. Nazarkin*

### I. Which states are ‘major powers’ today?

New realities change old notions. What do we mean today by ‘major powers’?

Until recently, major powers were equivalent to the five permanent members of the UN Security Council (the P5), with two superpowers among them. Today, certain corrections and clarifications need to be made. The dissolution of the Soviet Union and the end of the cold war, as well as the current weakness of Russia, have put an end to the bipolar world. What model of the world do we have now? Is it a unipolar world? Or is it a multipolar world, where one pole is much stronger than the others and where some other poles are growing fast? The latter option looks closer to the reality, particularly if we take into account the trend which dominates now.

It is a fact that, besides the ‘official’ five nuclear weapon powers, we now have two ‘self-proclaimed’ nuclear weapon states—India and Pakistan—and one ‘clandestine’ nuclear weapon state—Israel. The term ‘self-proclaimed’, which is usually attributed to India and Pakistan, seems inadequate because they did not proclaim themselves nuclear but have *become in reality* nuclear, exactly as the other five did. The non-recognition of nuclear weapon status for India and Pakistan reflects only the intention to prevent their further ‘weaponization’ but does not change the fact that they possess nuclear weapons. Reference to the definition of a nuclear weapon state in the 1968 Non-Proliferation Treaty (NPT) is not valid proof of their illegitimate nuclear status because the NPT, in Article IX, defines a nuclear weapon state ‘for the purposes of this Treaty’ (‘For the purposes of this Treaty, a nuclear weapon state is one which has manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January, 1967’). India and Pakistan, as non-parties, are obviously not covered by this definition. On the other hand, they have no juridical contradictory evidence for their accession to Additional Protocol II of the 1967 Treaty of Tlatelolco in their capacity as states possessing nuclear weapons, as defined by this treaty (Article 5). An indirect recognition of the nuclear weapon status of India and Pakistan might be found in the fact that the entry into force of the 1996 Comprehensive Nuclear Test-Ban Treaty depends on their ratification of the treaty.

It was in the spirit of the cold war to regard a state as a major power by its military strength, with nuclear weapons as the main factor. Today, political weight and economic power play a much more important role than in the past.

The formation of the Group of Seven (G7) industrialized nations, which has become the most influential political and economic forum in the world, proves this.

Following unification, Germany has become the biggest country in Europe and is developing as a large pole of political and economic power, in cooperation with other countries of the European Union. It therefore belongs to the category of major powers. The same is true for Japan, whose political and economic weight puts it in the same category.

There are big changes also among the P5. Russia has lost its status as a great power, at least for the time being, although it retains its enormous nuclear arsenal, which exceeds by far those of China, France and the UK. If and when Russia recovers economically, it might regain its great power status, but this cannot be expected to occur in the next decade. On the other hand, China demonstrates very successful and stable economic growth, which creates a strong and solid base for its military build-up.

The USA is, no doubt, the undisputed lone superpower because of its military, political and economic might. No individual state can counterbalance it at present. However, two or three states together could do so if they combined their efforts. If the development of political, economic and military relations between Russia and its 'natural geopolitical partner'—India—continues, this could create a very influential new 'pole'. It is premature to speak of a China–India–Russia triangle (although this possibility is under discussion in Russia), but the positive and intensive development of Chinese–Russian relations, in parallel with Indian–Russian relations, establishes a certain basis for such a triangle.

The category of 'major powers' can also include some other states apart from those mentioned above. This depends on the context, particularly on the issue under consideration. One of the most important new dimensions of arms control is that it has obtained much stronger regional significance than it had during the cold war. This means that regional powers play the role of 'major powers' in consideration of regional arms control and disarmament problems.

Thus, in the context of arms control and disarmament it is hardly possible or desirable to elaborate a definitive list of the 'major powers'. It is much more important to analyse each specific case with a view to exploring whether all states which should be regarded as 'major powers' in this context play an adequate role or not.

## II. Assessments of arms control today

The euphoria of the first years of the post-cold war period has provoked a trend to underestimate the importance of 'classical' arms control and disarmament, particularly nuclear, in the current international security agenda. However, the existing realities deny this approach.



Nuclear arms remain the most dangerous weapon in existence. The post-cold war world has inherited enormous nuclear arsenals, which have to be reduced in order to decrease the nuclear threats. Moreover, regional nuclear risks are increasing, as emphasized by the Indian and Pakistani nuclear tests conducted in 1998. Such risks are growing in the Middle East (Israel and, possibly, Iran and Iraq) and in the Far East (North Korea).

The enlargement of NATO aggravated the situation in Europe. Russia considers NATO enlargement, particularly with reference to the possible membership in the alliance of some former Soviet republics, such as the Baltic states and Ukraine, as a direct threat to its security and as a major obstacle to a further reduction of its nuclear forces.

The uses of military force by NATO against Iraq and in Bosnia and Herzegovina, and then the NATO air strikes against Yugoslavia, undertaken without a UN Security Council mandate, seriously complicated the prospects for nuclear arms control and disarmament and damaged the non-proliferation regime. This effect has been enhanced by the new NATO Strategic Concept, which has taken this practice as a new element of NATO strategy. In fact, the USA and NATO officially proclaimed their intention to change the international system based on the UN Charter and existing international law.

Some non-NATO states interpret this factor as an impetus to acquire, keep or strengthen nuclear weapons or other weapons of mass destruction. They conclude that, as soon as the international security system based on the UN Charter does not work, they should rely on their own force. Nuclear weapons are regarded as the most reliable deterrence.

Another stimulus, at least for the nuclear endeavours of Russia, has become the preparation for the deployment of a national missile defence (NMD) system in the USA. Although President Bill Clinton will not make a deployment decision until June 2000, in January 1999 the US Administration pledged to spend \$6.6 billion over the next six years for a network of radars and intercept missiles. This raises the budget for NMD in the years 1999–2005 to \$10.5 billion. So far the USA has already spent at least \$55 billion for national missile defences. The bill on deployment adopted in March 1999 by the Senate and the House of Representatives confirmed that no retreat from this purpose is expected.

A significant part of the Russian political–military establishment is genuinely concerned about the use of force or the threat of force by the USA and NATO. At issue is not fear of a real large-scale war, but rather a limited use of force over limited political objectives along the lines of the force used in Bosnia and Herzegovina, Iraq and Kosovo. One could imagine a variety of scenarios in Russia or in close proximity to its territory, but nonetheless involving its troops. This would include a deteriorating situation in the North Caucasus, the conflict in Abkhazia, separatist movements inside the country, nuclear cooperation with Iran, and so on.

For its part, Russia reacts to these developments by seeking cooperation with non-Western countries in the military field (with China and India) or in

the nuclear field (with Iran). Another implication for Russia is that those developments have stimulated its own military build-up.

In view of the sharp deficit of financial resources and poor shape of its conventional armed forces, Russia depends more heavily now than in the past on its nuclear armaments, which are much more cost-effective than modern conventional arms.

On 29 April Russia's Security Council considered the issue of the military security of Russia and, according to then Secretary of the Security Council Vladimir Putin and Defence Minister Igor Sergeyev, took decisions on the development and deployment of new tactical nuclear weapons and the strengthening of Russia's strategic arsenal.

According to a recent official statement, Russia will produce 30–40 Topol-M (SS-27) single-warhead intercontinental ballistic missiles (ICBMs) per year. This statement would have come as a surprise to anyone who expected that Russian nuclear weapon production would be scaled down or even discontinued after August 1998. This seemingly paradoxical policy begs an explanation.

There are two major factors behind this figure. First, the announced number will allow for replacement of missiles whose service lives are beginning to expire. Second, the figure of 30–40 is also the most cost-effective rate of production. A somewhat lower figure of around 20 (the rate of production in the mid-1990s) would have yielded no significant savings: for about the same money Russia would obtain fewer missiles. A significantly lower rate (12–15 missiles per year), which could theoretically achieve noticeable savings, is impossible because the minimum network of about 200 suppliers cannot be sustained. There is also a technically feasible possibility of the extension of the service life of SS-18s and of the Delta III submarine.

As for tactical nuclear weapons, two options are being considered (according to the Russian mass media): a return of such weapons to ships and submarines and deployment of new short-range missiles as a replacement for the SS-23 eliminated under the 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty).

Although such steps would involve additional expenditures, the required amount of spending is still lower than what would be necessary to deploy high-precision 'smart' weapons to match the expected NATO force that might be employed in a limited strike.

Modernization of nuclear weapons is cheaper than that of conventional armed forces, and sustaining the relatively small (in terms of military personnel and facilities) strategic triad is cheaper than sustaining much larger, even if reduced, general-purpose forces and the navy.

A nuclear arms race, which has already started in South Asia, is going to begin in other regions as well as globally. The regime of the non-proliferation of weapons of mass destruction suffers serious damage both directly from the negative factors mentioned above and indirectly because of the lack of progress in arms control and disarmament, particularly in the nuclear field.

The nuclear arms control process is in a deadlock at both the bilateral and multilateral levels. In order to find the right approaches to such a gloomy situation it is important to evaluate the role of the major powers in the process of arms control and disarmament, as well as in non-proliferation.

It seems that the dominant role which the USA, as the lone superpower, plays in world affairs, including arms control and non-proliferation, dwarfs some other major powers' possibilities to be more positive and constructive in this sphere. An examination of the situation in the areas of (a) non-proliferation, (b) bilateral arms control and (c) multilateral nuclear arms control follows below.

### III. Non-proliferation

As long as India and Pakistan are not parties to the NPT, they are not legally bound by the non-proliferation norms, with all the possible negative implications. However, it is not feasible to expect that they will eliminate their nuclear weapons and join the NPT as non-nuclear weapon states. The only way to involve them in the treaty is to recognize them as nuclear weapon states and change the definition of a nuclear weapon state embodied in the NPT. The complicated procedures provided for the adoption of amendments to the NPT make such a revision very problematic. However, some other, easier ways for India and Pakistan to commit themselves to similar obligations might be found, but this would in any case require their recognition as nuclear weapon states.

The proliferation of missile technologies is the weakest point in the whole non-proliferation regime. The Missile Technology Control Regime is not legally binding and does not include all the major powers capable of proliferating such technology. China, India, Pakistan, Ukraine and other states remain outside this regime. Different reasons that have nothing to do with the interests of non-proliferation keep them outside. This is another aspect of increasing the responsibility of major powers.

The counter-proliferation policy proclaimed by the USA means that it is inclined to rely upon itself in non-proliferation and to underestimate the value of the common efforts of other major powers. From the point of view of US national interests, it would be fine if this policy is really effective. However, the possibility of the use of military force, which is one of the elements of this policy, did not prevent India and Pakistan from 'going nuclear'. The use of military force against a proliferant country might even be counterproductive, as in the case of the Israeli bombardment of the Iraqi reactor in 1981 (having lost the plutonium reactor, Iraq took the uranium enrichment route, which appeared to be more successful).

The real solution would be better coordination of non-proliferation efforts by the major powers. Otherwise, they might be tempted to use non-proliferation as a cover for actions which have nothing to do with non-

proliferation and pursue such purposes as commercial competition or intelligence missions. Serving the narrow self-interests of one state, such misuse of non-proliferation discredits its basic concept and undermines the joint efforts of major powers in this field. Current practical policy on non-proliferation should correspond to proclaimed long-term priorities.

An increase in the responsibilities of all the major powers in the field of non-proliferation and better coordination of their efforts constitute the most effective approach to the problem. Another sphere where accomplishments could facilitate the strengthening of the non-proliferation regime is the implementation of Article VI of the NPT, that is, arms control and disarmament. The situation in this field is also not encouraging at all.

#### IV. Bilateral arms control

Despite its current weakness, Russia continues to retain an enormous nuclear arsenal which is comparable with that of the USA and exceeds by far the nuclear arsenals of other states. That is why the Russian–US bilateral dialogue does not lose its importance and remains the key for multilateral efforts.

The negative developments described in section II of this paper had a direct impact upon the fate of the 1993 Strategic Arms Reduction Treaty (START II Treaty). A brief chronology follows below.

In late 1998 supporters of the START II Treaty in the Duma had included in the bill on ratification conditions which met Russian concerns regarding NATO enlargement and NMD deployment. Everything was ready for ratification by last Christmas. However, as a result of the air strikes against Iraq on 17 December, ratification was postponed. After the recess, the Duma was prepared to come back to the ratification, but the US decision on an additional \$6.6 billion for preparation for deployment, declared on 20 January 1999, spoiled the situation for ratification again. On 22 March President Boris Yeltsin submitted the amended bill to the Duma and the vote on ratification was scheduled for 2 April. The first air strikes against Yugoslavia, on 24 March, resulted in indefinite postponement of the vote.

After the summer recess, deputies were occupied with their electoral campaign (the elections were to be held in December 1999) and there was no chance for ratification this year. Theoretically, a new Duma will be ready to take up the ratification issue in May–June 2000, but will it do so in practice? It is highly unlikely to do so for two reasons: (a) in view of the forthcoming presidential elections in June 2000, ratification will not be a priority issue for the president, for the government or for the Duma; and (b) START II is widely regarded as outdated and not meeting the existing security requirements.

### **START III and the ABM Treaty**

Some hopes for a way out of the deadlock emerged as a result of the Russian–US statement made in Cologne in June 1998. The two presidents agreed to begin discussions on both further nuclear reductions under a START III agreement and ‘possible proposals for increasing the viability of the [1972 Anti-Ballistic Missile, ABM] Treaty’. At the same time they committed their respective governments to ‘do everything in their power to facilitate the successful completion of the START II ratification process in both countries’. They also reaffirmed their commitment to the ABM Treaty, which they recognized as a ‘cornerstone of strategic stability’, that is, of ‘fundamental importance’ for achieving further reductions in strategic offensive arms.

The discussions, which started soon after the Cologne meeting, have not yet brought any results, according to published information. This is not surprising because, although Russia for the first time agreed to discuss the ABM Treaty, the Russian delegation was evidently guided by the confirmation of the importance of the ABM Treaty made in the statement. Another valid reason for such an unpromising beginning is that both countries are approaching the year of their presidential elections.

Below are the present author’s personal thoughts about what should be done to break the deadlock.

1. Both sides should admit that the START II Treaty is dead and forget about ratification. The signing of the treaty by Russia was attached with conditions regarding the compliance by both sides within the ABM Treaty as a cornerstone of strategic stability. The bill on the ratification of START II prepared in the Duma in 1998–99 provides that Russia should withdraw from START II in case (among other cases) the USA withdraws from the ABM Treaty or violates it. When it became clear that the USA would go ahead with the deployment of NMD in contradiction with the ABM Treaty, START II lost significance and became outdated. Of course, if Russia agrees to amend the ABM Treaty in a manner that would permit the USA to deploy NMD, the USA could not withdraw from the treaty or violate it, but this option looks most unlikely. Bound by START II provisions banning multiple independently targetable re-entry vehicle (MIRV) ICBMs, Russia will not agree to amend the ABM Treaty.

2. Instead, Russia and the USA should concentrate on negotiating a START III accord, which would lower warhead levels to 1000–1500, be based on the infrastructure of the START I Treaty and borrow those elements of START II which might be acceptable to both sides.

3. Russia should admit that the USA would not drop its plan to deploy NMD. Formally, the decision on the deployment (or, theoretically, on non-deployment) will be taken next year. However, this decision depends solely on technical issues. Hence, it might postpone the deployment for one or two years, but not longer. The amount of \$55 billion, which the USA has already

invested in missile defence projects, is too large for it to retreat from the purpose. If Russia ignores the inevitability of the deployment of US NMD and continues to stick to the ABM Treaty 'as it was signed in 1972', the USA will withdraw from the ABM Treaty and will be free to deploy and then to develop NMD. In the long run this might lead to a great US strategic superiority over Russia. That is why it is in the interests of Russia to put certain legally binding limits on US NMD. If the USA wants to protect itself against 'rogue states', as they say, it may do so, within appropriate limits, which would be fixed in an amended ABM Treaty. This treaty would prohibit the USA from going beyond this limit and prevent it from changing the strategic balance with Russia more drastically.

4. The USA, in turn, should recognize, if it still agrees to play this game under the existing legal rules, that Russia has the right to something in compensation for the strategic imbalance resulting from the deployment of US NMD. Today, Russia has no material resources to deploy its own NMD; it has only the possibility of giving an 'asymmetrical response'. This might include the means to penetrate, at least partially, through NMD. MIRVed ICBMs, which are prohibited by START II, are such means. That is why the USA, if it wants to deploy NMD in congruence with Russia, should drop its insistence on prohibiting MIRVed ICBMs (a limit of three to five warheads for one missile is negotiable, in my view).

These two basic concessions by each side might constitute a solid basis for further negotiations on strategic weaponry, although the question of the duration of the ABM Treaty and START III would be very sensitive.

Limitations on the parameters of NMD, on the one hand, and MIRVs, on the other hand, are to be negotiated. In view of the present financial, economic and political handicap of Russia there are hardly any doubts that the result would be in favour of the USA. That is why the USA would not lose anything and Russia would keep as much as it could (otherwise it would lose everything).

One might ask why the USA would not make concessions to Russia, giving Russia back the possibility to have MIRVed ICBMs and accepting limits on US NMD. The USA is strong enough to go ahead without such concessions. It undoubtedly can, but what would be the implications of this position of strength? That would lead to confrontation with Russia, and confrontation would influence domestic developments in Russia in favour of the growth of a nationalistic trend, isolation from the West and rapprochement with some states which the USA regards as sources of threats to itself. It is worthwhile to take this possibility into account. Fortunately, some prominent strategists in the USA understand this. Sam Nunn, Brent Scowcroft and Arnold Kanter, in their article in *The Boston Globe* of 13 September 1999, wisely wrote: 'We should not yield to the temptation to exploit [Russia's] short-term weakness at the expense of reaping its enduring enmity, for if we do, then history indicates that our children will pay the price'.

If the first option, based on mutual concessions, is adopted, it would be logical if Russia and the USA agreed to start negotiations following the same pattern as they adopted for START, INF and outer space.

1. Each side should be represented at the negotiating table by one delegation under the 'super-head', who would coordinate and guide the negotiations.

2. There should be three tracks of the negotiations: (a) further reduction of strategic weapons (START III, which would partially encompass START II); (b) revision of the ABM Treaty; and (c) possible measures relating to nuclear long-range sea-launched cruise missiles (SLCMs) and tactical nuclear systems, to include appropriate confidence-building and transparency measures (as was agreed at Helsinki in 1997).

3. Each track should be dealt with by sub-delegations, which would report to their respective 'super-heads'.

A breakthrough in the bilateral field might stimulate multilateral efforts.

## V. Multilateral nuclear arms control

Multilateral efforts (negotiations on a fissile material production cut-off and preliminary discussion of the future involvement of all the nuclear weapon states in limitations on and reduction of nuclear weapons) should be exerted in parallel with the bilateral process.

Meanwhile, a deadlock exists also in the multilateral field.

At present, the Conference on Disarmament (CD) is the only forum for negotiations on matters relating to nuclear disarmament. All the key players, including the nuclear weapon states and the nuclear 'threshold' countries, are represented there. The CD has a clear-cut mandate as 'a single multilateral disarmament negotiating forum' whose agenda contains as its first item 'Cessation of the Nuclear Arms Race and Nuclear Disarmament'.

In 1998 the CD established an ad hoc committee to negotiate the cut-off on fissile material production. However, this year the re-establishment of this committee was linked with the issue of nuclear disarmament. Because of the consensus rule, this linkage has blocked the CD in 1999.

The explanation for this paralysis might be found in the fact that the nuclear weapon states (not only the five 'official' nuclear weapon states, but also all de facto nuclear weapon states) have no special responsibility in the CD. Of course, equality of rights is a democratic rule, but equality of responsibilities just diminishes the responsibilities of those which can and should do more than others.

It is quite feasible to negotiate measures on fissile materials now, while general and complete nuclear disarmament is a utopia, at least for the observable future. However, this does not mean that preparatory steps leading to future negotiations on nuclear disarmament could not be taken.

The bilateral dialogue focuses on strategic weaponry. The START III mandate, as stated in the Helsinki Joint Statement, does not provide for negotiations on the reduction of tactical nuclear weapons. It only says that 'experts will explore, as separate issues, possible measures relating to nuclear long-range SLCMs and tactical nuclear systems, to include appropriate confidence-building and transparency measures'. This cautious approach to tactical nuclear weapons is quite understandable. A more radical approach requires the involvement of other nuclear weapon states.

At what forum could preliminary discussions on multilateral measures in the field of nuclear weapons be held? Those states which are supposed to be covered by such measures should have a more decisive voice in comparison with those which have nothing to limit or reduce. The CD does not seem to be such a forum, not to mention the impasse existing in the CD. There is no doubt that the Soviet Union and the USA would have achieved no results if the 1972 Strategic Arms Limitation Treaty, the START treaties and the INF Treaty had been negotiated at the CD.

Some other ways to negotiate nuclear issues should be explored.

## VI. Conclusion

The key point is how to raise the responsibility of the 'major powers' and, particularly with regard to nuclear issues, how to increase the responsibility of the de facto nuclear weapon states.

The solution might be a forum with the participation only of those states which will be involved in future measures. Another option is a forum with a broader participation, which would also include representatives (coordinators) of regional groups. In this case, however, decisions should be taken with the consent of the nuclear weapon states, which would be covered by future measures.

Such a system, based on the veto power of the major powers, could raise their responsibility. They would not be able to cover their negative positions with the 'no' of some other states, as happens in the CD. If a major power says 'no', it would immediately put itself in the limelight.

Of course, a comparison with the UN Security Council, with the P5 veto power, easily occurs, but it is easier to have five to eight states with a power of veto than 60 states with the same right. It is difficult to reach consensus even among five states, but this is the only way to negotiate realistic arms control measures and to raise the responsibility of major states in the field of arms control and disarmament. The increase of responsibility of all major powers in the field of arms control and disarmament would create more favourable conditions for progress in this field.



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## 8. Major powers and arms control: a US perspective

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*James E. Goodby\**

### I. Introduction

The role of the major powers in the arms control and disarmament process could be addressed from many perspectives and, without some sense of priorities and policy choices, could easily become an all-encompassing analysis of the whole field of arms control. I have chosen to address the subject with the ancient proverb in mind ‘Physician, heal thyself’. I mean by this that I have chosen to speak of the lessons that can be learned from the experiences of the major powers in their dealings with one another. From that foundation, I shall discuss those issues and policies that I believe should form the future agenda in arms control and disarmament among the major powers themselves. This choice means that I will not be focusing on nuclear weapon proliferation among the present non-nuclear weapon states, nor on the resolution of conflicts that drive regional arms races, nor on the implications of new technology for arms control and disarmament—three topics that are of enormous importance for international peace and security and where the major powers clearly have a role to play. I will have to pass over these subjects with the observations that global norms and cooperation on a global scale are more important than ever; that cooperation among the major powers in promoting regional efforts to prevent or limit regional nuclear arms races is essential; and that information disruption, space and non-lethal weapons and a variety of new technologies call out for attention. Chemical and biological weapons also present serious threats.

Having said what I do not intend to discuss in any detail, I will explain what I do propose to say about the role of the major powers. First, I agree wholeheartedly with a comment that Dr Adam Daniel Rotfeld, Director of SIPRI, made in his letter of invitation to this symposium: ‘Our aim is to consider a

\* In preparing these remarks, I drew on some ideas I have written about in the past. For a fuller exposition, consult Goodby, J. E., *Loose Nukes: Security Issues on the Russian–US Agenda*, CISAC Working Paper (Stanford University Center for International Security and Arms Control (CISAC): Stanford, Calif., 1997); Goodby, J. E., Feiveson, H., Shultz, G. and Pery, W. J., *Ending the Threat of Nuclear Attack*, CISAC Report (Stanford University Center for International Security and Arms Control: Stanford, Calif., 1997); Goodby, J. E., *Europe Undivided: The New Logic of Peace in US–Soviet/Russian Relations* (US Institute of Peace Press: Washington, DC, 1998); and Goodby, J. E., ‘Preventing global security disasters: arms control in US–Soviet/Russian relations’, ed. I. W. Zartman, *Preventive Negotiation: Avoiding Conflict Escalation* (Rowman & Littlefield: Lanham, Md., 2001).

new agenda as an instrument for establishing a new cooperative security order'. Indeed, I believe that the role of the major powers in arms control should be a function of their relation to each other; arms control should not be an artificial and disconnected factor in international relations. Therefore, my intention is to address future relations among the major powers, which I will somewhat arbitrarily define as China, the European Union, Japan, Russia and the USA. I recognize that several other nations, arguably, could be included in this list but, for me, this list has the advantage of defining the globe's primary strategic axis, running from North America through Eurasia to Japan. For convenience, I will call this the Eurasian system.

Ambiguity and ambivalence concerning the nature of the cooperative security order that might be established within the Eurasian system of states are commonplace even among those who think about it. So long as such fundamental uncertainties exist, a stable peace will be difficult to attain. We have been spared the worst effects of these uncertainties because the major nations, without exception, have been preoccupied with their own internal affairs for the past few years. That is beginning to change and, as it does, the absence of clarity about basic common interests may generate tensions and instabilities. This is why it is so important for us to think now about long-term structural aspects of relations among the major power centres.

Looking ahead to the 21st century we are likely to see a powerful global economy, the continents more interconnected than ever before but, paradoxically, with stronger local autonomy in many cases. Despite a global economy and more local self-determination, we are likely to see nation-states continuing to exert whatever influence they possess—and they will possess a great deal—in defence of national interests. We may see a USA that will be the strongest militarily and economically of the major power centres of Eurasia but by no means strong enough to impose its will on the other major power centres and not much disposed to use force to do so, in any event. It will be a world unlike the world of the past half-century, a bipolar structure dominated by the Soviet–US competition.

A parallel can be found in the Europe of roughly 1815–90, when there were five major power centres: Austria, England, France, Prussia—later Germany—and Russia. It was a multipolar world, as the 21st century is likely to be; a world of rising powers and declining powers, as the 21st century may be; a world of economic growth fuelled by new technologies, as the 21st century could be. However, 19th century Europe was more self-contained than the world of the 21st century will be: diplomatic stratagems and alliance structures in 19th century Europe could come and go with little reference to the rest of Eurasia, which was not yet a system of states. That is no longer so and it was ceasing to be so as early as the 19th century. Autonomous policies for the major power centres of Eurasia will not work very well in the world of the 21st century because of the extent of interdependence that already exists and which will probably continue to intensify.

The question that preoccupied the statesmen of multipolar Europe in the 19th century has posed itself again. How can the major power centres jointly or severally create an equilibrium among themselves, a framework for advancing their own individual interests while managing their inevitable differences? In the 19th century the formula used by the dominant states of Europe was the balance of power, but the mechanisms they constructed to regulate their relations took different forms and were not always tightly linked to estimates of power balances. Some of their methods may be relevant to the needs of the 21st century.

## II. A stable peace and equilibrium

Several years ago Professor Stanley Hoffmann of Harvard University wrote about the shift from a world dominated by the strategic–diplomatic chessboard to a world dispersed into a variety of chessboards. This image is even more apt today in light of the new global agenda—trade and finance, the environment, ethnic conflicts, the terrorist threat, humanitarian and human rights issues, and the spread of democracy. However, Professor Hoffmann also pointed to the need for a synthesis in foreign policy between the hard realities of power politics and the demands of the other chessboards. Finding the right balance between policies that concern the direct interaction of the big powers and policies that deal with the newer global agenda is, I think, one of the profound conceptual challenges that the major nations now face. It is not being handled as well as it needs to be. For the USA, as indeed for most of the major powers, the situation in Kosovo was dramatically illustrative of the dilemmas inherent in finding the right balance.

European statesmen of the 19th century discovered for a time that an equilibrium, rather broadly defined, among the major powers met their fundamental national requirements. So today, equilibrium among the world's power centres is almost self-evidently preferable to a world resentful of US unilateralism. From my perspective, a 21st century equilibrium among the great powers of Eurasia should be focused more on common objectives and shared expectations about national behaviour and less on military balances. This, I take it, is the essence of a cooperative security order. In any case, relations among major power centres have become too complex and too much influenced by non-military factors to allow military calculations to dominate.

The basic requirement throughout the Eurasian system of states is to understand that mutual nuclear deterrence cannot be, in the long run, the fulcrum for achieving equilibrium. Accommodation and restraint must be the foundation on which to build cooperation and trust. Furthermore, moving beyond a conditional peace among the major powers requires direct engagement among these centres, not just on issues of global concern but also on specific matters that affect their own security, often in some unique way. The diplomacy deployed to construct an equilibrium and a stable peace among the major power centres

has to be motivated by the desire to create some kind of predictable, orderly relationship among them—a cooperative security order, or a security community. Arms control can play a role in this.

### III. The present relevance of arms control

If we think of the end of the cold war as a time of relative peace among the major powers, we should ask ourselves whether arms control could survive peace. Seemingly not. There have been no Russian–US negotiations on deeper reductions in strategic nuclear weapons essentially since the end of the cold war. The 1972 Anti-Ballistic Missile Treaty (ABM Treaty) is in jeopardy. Nuclear issues are beginning to dominate the security agenda in East Asia. India and Pakistan have blown a large hole in the 1968 Non-Proliferation Treaty. The 1996 Comprehensive Nuclear Test-Ban Treaty has had hard sledding in the US Senate, and elsewhere. Outside of the arms control community there has been no public outcry about this in the USA or elsewhere. The imminent demise of arms control is not an issue in US politics and evidently not in other countries either. It is seen as an elite issue that has little effect on ordinary folk.

This attitude, I think, misjudges the nature of the present peace among the major powers. Peace has several definitions, and I thank Professor Alexander George of Stanford University for bringing this to my attention. Between two states or groups of states at peace, at least three forms can be distinguished: (a) a *precarious* peace, where war may be imminent; (b) a *conditional* peace, where war may be unlikely but is not excluded as a policy option; and (c) a *stable* peace, where war is simply not considered as a method of resolving disputes and deterrence by military means is not a part of the bilateral relationship. Arms control has little relevance in a case where a stable peace exists between two countries since in such a situation there is no reason for an arms race. It is true that arms control is next to impossible in a situation of precarious peace. The case of the Korean peninsula illustrates just how difficult, but under a conditional peace such as that which prevailed between the USA and the Soviet Union throughout most of the cold war, and which still exists today between the USA and Russia and China, arms control can be a key element of the relationship, not only in constraining an arms race but also in a broader preventive diplomacy role. Those critics who have dismissed the relevance of arms control have failed to consider the various forms of peaceful relations and they ignore the contributions that arms control negotiations can make to political relationships between two states.

A great lesson of the cold war, not always heeded today, was that decision making by one superpower that was truly autonomous generally miscalculated the interests of the other superpower and led to results that no one liked. Summing up cold war experiences with arms control as preventive diplomacy—which were mainly Soviet–US experiences—it can be said that the

agreements, even though quite limited in the early years, provided both safety nets and ratchets. Even when Soviet–US relations went through rough patches, the arms control agreements, and even the negotiations themselves, saved the relationship from being damaged beyond repair. Successive agreements and the experience in cooperation ratcheted up the belief in the possibility and feasibility of cooperation so that the relationship never went back to the place where it had started.

#### IV. The priority task of the major powers

Despite all the other doomsday machines invented in the past half-century, the main threat to the survival of human civilization remains the nuclear weapon. The preponderance of nuclear weapons in the world is held by Russia and the USA. All the other nuclear weapon states together represent a distant third behind the two nuclear giants. Therefore, Russia and the USA have a special responsibility for leading the way to deep reductions in nuclear weapons. Equally important would be steps each could take to reduce the threat of unintended nuclear conflict. The outlook for a continuation of the process symbolized by the Reykjavik summit meeting of 1986, however, is bleak. That meeting stretched the envelope of the imaginable beyond anything that had gone before and set the stage for the nuclear arms reduction treaties that followed. The revolution in nuclear disarmament started by Presidents Ronald Reagan and Mikhail Gorbachev in the mid-1980s has long since ground to a halt. In fact, it could be argued that the counter-revolution has begun.

In Asia, the long-dormant nuclear weapon issue has forced itself to the top rank of security issues confronting the major powers of that region and hence of the world. China has maintained a minimum deterrent-style nuclear force for years. Now there are signs that China may be considering more seriously than before a new generation of solid-fuelled, multiple-warhead inter-continental ballistic missiles. North Korea's brinkmanship regarding nuclear weapons and nuclear delivery systems has created a backlash in Japan. The result has been pressure on Japanese political leaders to pursue a policy of jointly developing with the USA a missile defence capability. China sees this, in turn, as a threat to the deterrent effect of its present nuclear force structure. China also is directly affected by India's nuclear weapon tests, especially since the Government of India declared that its weapon programme was designed to counter China. In the midst of these nuclear developments, Russia has gone out of its way to announce that it would use nuclear weapons against a conventional attack on Russian territory; the Government of Taiwan has decided to drop the 'one China' policy; Kashmir brought India and Pakistan close to a major war; North Korea and South Korea fought a small-scale naval engagement; and the 1994 North Korean–US Agreed Framework that headed off North Korea's nuclear weapon programme is in serious danger because of North Korea's ballistic missile test.

In the balance of this paper, I will discuss Russian–US nuclear relations and nuclear weapon developments in the Asian–Pacific region as they affect China, Japan, and the USA, and finally I will speak of the common enemy they all face—the threat of sub-state nuclear terrorism.

## V. Russian–US nuclear relations

Although other issues have come to the fore in Russian–US relations, economic and political issues are more often at the top of the agenda than nuclear arms control—in nuclear affairs a special relationship still exists between Russia and the USA. Why is this so? Russia and the USA are no longer adversaries, and arms control is not generally a feature of relations among friendly states. However, Russia and the USA have not yet become friends and allies; nuclear weapon plans and deployments continue to infect Russian–US relations nearly 10 years after the end of the cold war. The nuclear legacy of the cold war still troubles their relations; it undermines nuclear non-proliferation efforts and it constitutes a real and direct danger to all the major powers and to others.

If the negotiations on a new Strategic Arms Reduction Treaty (a START III accord) between Russia and the USA ever begin, the issues they will face are not really different, as technical matters, from corresponding issues in the cold war days. Negotiations will be required to resolve differences and to create a legally binding basis for implementing the results, and the resemblance to arms control negotiations of the past will be strong.

Russian–US arms control treaties are still necessary because of the need for predictability, for a legal basis for intrusive monitoring in some cases, and because of the obligatory nature of actions to be taken. The list of subjects that are appropriate to negotiate and codify in a legally binding and verifiable agreement looks like this.

1. *Aggregate ceilings on strategic nuclear warheads.* The 1993 START II Treaty provided for reductions to 3000–3500 deployed warheads. Presidents Boris Yeltsin and Bill Clinton agreed to try for a treaty—START III—that would bring these numbers down to 2000–2500 apiece. Because of the decline in Russia’s financial means to deploy nuclear weapons, 1500 warheads would be a reasonable target. At levels below that, codified in a treaty, the problem of non-deployed, possibly concealed warheads, must be addressed; very intrusive monitoring would be required to deal with this issue.

2. *Dismantling of strategic nuclear warheads* to promote the irreversibility of deep reductions including prevention of a rapid increase in the number of warheads—the ‘breakout’ problem. This requires a formula for mandatory dismantlement, plus rigorous methods of accountability plus, at least, jointly monitored storage of dismantled nuclear components to ensure irreversibility.

3. *Limits and reductions in tactical nuclear systems.* As strategic warheads decline in number, short-range systems become more important. Deep cuts in strategic weapons could not omit tactical warheads.

4. *Amendments to the ABM Treaty.* A limited system providing some defence of the United States against a small missile attack might be achieved through a more permissive approach to ground-based defence systems. In other areas of the Russian–US nuclear relationship where the issues need not, and probably should not, be the subjects of formal Russian–US arms control negotiations, *cooperation is lagging or is non-existent.*

5. *Early warning.* The Russian system for detecting incoming re-entry vehicles has deteriorated badly.

6. *Less reliance on prompt launch procedures.* A mutual stand-down would relieve stress on the Russian command and control system.

7. *Transparency in warhead dismantlement to enhance confidence.* The purpose here would be to provide increasing levels of confidence that dismantling is taking place; to increase mutual understanding concerning the size and nature of each other's stocks of weapons and fissile material; and to enhance security of fissile materials against theft.

8. *Transparency in holdings of operational warheads for short-range systems.* The purpose would be to build confidence that tactical warheads are in safe and secure storage; and to enhance transparency regarding numbers and locations of tactical nuclear weapons.

## VI. New nuclear problems in Asia

In East Asia several events mentioned above have combined to push the issue of nuclear weapons closer to the top of the international agenda. Unless each of these issues is managed very skilfully, the nuclear restraint regime built up so painstakingly over many years and which has served the cause of international peace and security so well could be severely damaged.

The main question to be faced is whether nuclear weapons will play a more or less important role in the future of East Asia. Their role may increase, especially if nations continue to pursue essentially unilateral policies instead of basing their policies on regional security concerns. This could result in a costly, destabilizing and dangerous arms race, but things do not have to turn out that way. The saliency of nuclear weapons in East Asia could be attenuated through systematic and imaginative efforts to cooperate, especially through the relatively untried methods of multilateral diplomacy. China, Japan, the two Korean states and Russia, as well as the USA, may have to create a new security mechanism in North-East Asia.

The development of missile defence systems is certainly one area that requires increased multilateral discussion and collaboration. The rationale for US theatre missile defences is to discourage states like North Korea from thinking that ballistic missiles will give them some advantage over the USA or

its allies. These defences are not directed against China or Russia. Indeed, in the absence of cooperation from China and Russia the basic purpose of theatre missile defence (TMD) could be thwarted. However, China and Russia both have expressed serious concerns about TMD, in part because they see a connection to a US national ballistic missile defence system. They evidently see TMD as a first step in a broader US strategy to develop an effective disarming first-strike capability.

It is imperative, therefore, that China, Russia and South Korea be brought into discussions about missile defence systems, and soon. Considerations that need to be discussed include the rationale for cooperation, core capabilities, deployment plans and system architecture. Alternative ways to reduce the threat of ballistic missiles should also be explored. Former US Secretary of Defense William J. Perry has been exploring such possibilities with North Korea but, as of this writing, answers have not yet been forthcoming from Pyongyang.

Shared early warning of ballistic missile launches could be a potentially important area for international cooperation in Asia. A Russian–US programme of cooperation is just beginning to be worked out. A similar programme could be put together in Asia. The model for early-warning cooperation that Presidents Clinton and Yeltsin have agreed to pursue consists of three parts: (a) a continuous exchange of available information on the launches of ballistic missiles and space launch vehicles; (b) establishment of a Joint Warning Centre to monitor launches; and (c) development of a regime for prior notification of planned launches of ballistic missiles and space launch vehicles in which other interested countries could participate.

The time may come, within the next few years, to multilateralize strategic nuclear weapon negotiations. Once negotiations with Russia pass beyond the model of START III, the theme of the talks may more aptly be described as nuclear disarmament and transforming nuclear deterrence than as reductions in nuclear forces. Even before then, other nations should become at least loosely connected to the Russian–US negotiating process. There are many operational issues that do not rely on the reduction process but which could make the world safer: de-alerting, de-activation, early warning and, perhaps, use doctrines. At a minimum, these discussions should embrace China, France and the UK. I think they should also include India, Israel and Pakistan and that it would be advisable to seek the inclusion of a selected number of those non-nuclear weapon states, such as Japan and Germany, that have a stake in the outcome of nuclear negotiations, either because of alliance relationships or because they could easily become nuclear weapon states if they opted for that status.



## VII. Responding to the ‘new medievalism’

Perhaps the most threatening of post-cold war developments stems not from the ambitions or fears of states contending in an international system but from the changing character of sub-state units and the possibility that they can acquire weapons of mass destruction (WMD). How well a government safeguards its holdings of fissile materials and its technological expertise now is a matter of international concern. In these matters, the adversary is no longer another state. The goal, in fact, is to work with other governments in a common struggle against nuclear theft, nuclear smuggling and nuclear terrorism. In the age of globalization, diplomacy may increasingly deal with a very new problem—that states no longer have a monopoly over the use of force on a devastating scale. If the states are to win this fight they will have to cooperate increasingly in areas that are still thought of as sovereign prerogatives and primarily matters of internal concern.

How governments can mobilize their resources to confront this new situation has become a central problem for diplomacy. It comes down to the question of how joint action by governments can combat the rise of what the late Hedley Bull called ‘the new medievalism’. Nearly a quarter of a century ago, Hedley Bull, professor at Oxford University, explored alternatives to the contemporary state system in his classic book *The Anarchical Society*.<sup>1</sup> He examined whether the state system might be giving way to a secular reincarnation of the system of overlapping authority and multiple loyalty that was the central characteristic of medieval Europe. He thought not, partly because all the actors in these trends were ‘intellectually imprisoned by the theory of the states system’. The World Trade Center bombing in New York, the Oklahoma City bombing and the Aum Shinrikyo’s nerve gas attack in Tokyo, however, do not fit the patterns of the past. Some observers of these events have suggested that they represent a new kind of terrorism, one aimed at retribution or eradication of what alienated groups define as evil. Such groups are not constrained by concerns about losing popular sympathy for their cause. The net result of this development is that the use of weapons of indiscriminate destruction—chemical, biological and nuclear weapons—may become more attractive to groups interested in mass violence.

Perhaps the time has come to consider a joint statement of the UN Security Council that the use of WMD by any nation or sub-state group is a serious violation of international norms and that such use would require them to consult immediately among themselves regarding action against the transgressor. The dilemma here is that, while the use of chemical and biological weapons is prohibited by international agreements, the use of nuclear weapons is not. Nuclear deterrence during the cold war, as perceived by the USA, depended on an assumption that the USA might be the first to use nuclear weapons if necessary. Now Russia is trying to create the same perception, but the logic of a

<sup>1</sup> Bull, H., *The Anarchical Society: A Study of Order in World Politics* (Macmillan: London, 1977).

policy of joint sanctions against a nation or sub-state group that used WMD would lead inexorably to a policy among the five declared nuclear weapon states that they would not be the first to use nuclear weapons. This would leave open the right of 'belligerent reprisal', a legal doctrine which, broadly speaking, entitles a country to respond to another country's violation of an agreement without being bound by the limitations the two countries had jointly accepted. Such a policy should be adopted only if, after serious reflection, it appeared that joint sanctions against terrorists or rogue states would help to deter a threat that is now much more likely than any attack by one of the current nuclear weapon states against another. It would be a flimsy barrier against terrorists and criminals, but we need to erect all the barriers we can find, to deter the threat that most experts think is the most serious we face and against which, under the best of circumstances, we will have very little real defence.

## VIII. Conclusion

The next few years are likely to be a watershed time in human history. Either we will move on to deeper reductions in nuclear weapons or the downward trend we have seen in recent years will be halted and perhaps reversed. There is even the possibility of a global nuclear arms race if we take the wrong road in relations among the major powers. A safer strategic environment with progressively less reliance on nuclear weapons is a valid objective and would contribute to a stable peace. It would be a tragedy beyond words if the major powers not only squandered this historical opportunity but also missed the chance to thwart their common enemy, terrorists armed with weapons of indiscriminate destruction. Nuclear weapons remain an apocalyptic threat to civilization. It is a dangerous illusion to think that new international relationships following the end of the cold war have somehow freed the world from that threat. All the ingredients for a catastrophe are still there.

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## 9. Major powers and arms control: a Chinese perspective

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*Li Changhe*

### I. Introduction

The major powers play a key role in the process of international arms control and disarmament. Their policies and actions have a direct bearing on the success or failure of this process.

By definition, the major powers are those countries that possess significant political, economic, technological and military capabilities. They may exert an important impact on the stability of international relations and confidence among nations. In the cold war period, the Soviet Union and the USA were the two superpowers with strong comprehensive national strength, and each was aligned with a military bloc. After the cold war, the USA is the only superpower left, and both Russia and the USA still possess the largest and most sophisticated nuclear and conventional arsenals, far exceeding other countries in terms of military strength. As permanent members of the UN Security Council, China, France and the UK, together with Russia and the USA, assume important responsibilities in maintaining world peace and security in accordance with the UN Charter. At the same time, the three are also nuclear weapon states. Besides, there are some other countries which are the most developed, in terms of economy and science and technology, thus having substantial political influence and military capability or potentials. Such countries can also play important roles in international or regional affairs.

### II. The arms control and security policies of great powers

The foreign policies and military doctrines adopted by the major powers could have a profound influence on international peace, security and stability, which in turn affects arms control and disarmament. A favourable international peace and security environment is the prerequisite and foundation for progress in disarmament and arms control. Only with a stable and relaxed international situation, as well as mutual trust and assurance of security among major powers, would it be possible to achieve progress in disarmament. Progress in disarmament and arms control would in turn promote international peace, security and stability. These two elements are mutually promoting and positively interactive.

During the cold war, the two superpowers were in dangerous confrontation with each other and the two military blocs were at the sword's point, resulting

in tense and turbulent international relations. Under these circumstances, no real progress in disarmament was possible. On the contrary, there was a continuous escalation of the arms race, with both conventional and nuclear armaments reaching a horrifying level. At that time, even though the two superpowers sometimes engaged in arms control negotiations and reached certain agreements, these negotiations and agreements were of limited significance. However, there were exceptions, such as the 1968 Non-Proliferation Treaty (NPT), the conclusion of which was driven by the common interests of the two superpowers.

In the wake of the cold war, international relations moved to a relaxation. Peace and development have become the trend of the time. Against this backdrop, the disarmament process encountered an unprecedented 'window of opportunity' in the first half of the 1990s and some major achievements were made. Apart from the bilateral progress marked by the conclusion of the 1991 and 1993 Strategic Arms Reduction Treaties (START I and II, respectively), breakthroughs were also achieved multilaterally. The 1993 Chemical Weapons Convention (CWC) and the 1996 Comprehensive Nuclear Test-Ban Treaty were concluded, the NPT was extended indefinitely, and the negotiations on a protocol to strengthen the 1972 Biological and Toxin Weapons Convention (BTWC) commenced.

However, in recent years the cold war mentality, hegemonism and power politics have been on the rise. The military alliances formed during the cold war, instead of being dissolved, have been enlarged and further strengthened. In order to gain absolute military supremacy, one major power, despite its possession of the most sophisticated offensive weapons, is still seeking new and even more advanced weapon systems, including a missile defence system. What is more, there has been the occurrence of military strikes against a sovereign country, bypassing the UN and in violation of the universally acknowledged principles guiding international relations. These developments have had a serious negative impact on international relations, while distrust among some major powers has increased and geopolitics and military factors in international relations have been on the rise. The security perceptions of the medium-size and small countries have been affected negatively as well. Inevitably, these complicated and drastic changes in the international situation have led the disarmament process to a standstill. For example, the ratification of START II has been delayed time and again, and the bilateral nuclear disarmament process between Russia and the USA has been stalled and may even be reversed. If the 1972 Anti-Ballistic Missile Treaty, the cornerstone of international nuclear disarmament, is amended or even abolished, global and regional strategic stability will be undermined. The international nuclear non-proliferation regime is facing serious challenges, and negotiations on a Fissile Material Cut-Off Treaty are still pending.

In view of the above, and in order to promote arms control and disarmament, the major powers should play a positive and constructive role in improving international relations and the security environment, and commit them-

selves to establishing a new, fair and rational international order and forging a new security concept. Specifically, they should promote the establishment of state-to-state relations on the basis of the UN Charter and other widely recognized norms governing international relationships. They should take the lead in adhering to the principles of respect for each other's sovereignty and territorial integrity, mutual non-aggression, non-interference in each other's internal affairs, and not using or threatening to use force against each other. They should resolve international disputes and regional conflicts by peaceful means, through dialogue, consultation and negotiation on an equal footing. They should do away with the cold war mentality and the obsolete security concept based on military alliances and military build-ups, forge a new concept with mutual trust, mutual benefit, equality and cooperation as its core, seek security on the basis of common security for all countries, and refrain from enhancing their own security or that of only a handful of countries at the expense of other countries' security.

### III. The agenda ahead

The important role played by the major powers in the arms control and disarmament process is also underlined by the fact that their policies in this field exert a profound impact on this process. In this regard, it is essential that the major powers work to enhance security for all countries by adopting a fair, rational, comprehensive and balanced approach to disarmament. Any other approach would not be conducive to disarmament and arms control.

1. Disarmament and arms control should not become a tool for stronger nations to control weaker ones, still less should it be an instrument for a handful of countries to optimize their armament in order to seek unilateral security superiority. The major powers should not attempt to reduce only the armaments of others while keeping their own intact, to reduce the obsolete while developing the state-of-the-art, or even to sacrifice the security of others for their own security.

2. The major powers should in particular implement in real earnest the existing disarmament and arms control treaties and safeguard the effectiveness and authority of international legal instruments. It is an act of double standards to require other countries to scrupulously abide by treaties while giving oneself freedom of action by placing domestic laws above international law. This act runs counter to the fundamental purposes and objectives of disarmament and will lead to the loss of confidence of countries in disarmament.

3. The major powers should commit themselves to the promotion of the economic development of all countries, especially the developing countries, and to the strengthening of international scientific and technological cooperation. No disarmament measure will be able to garner universal support or have

lasting viability if it is taken at the expense of the economic or scientific development of most countries.

4. The major powers should pursue a policy of responsibility and exercise restraint in exporting and transferring arms and relevant technology so as not to add to regional tensions and turbulence and still less to use arms and technology export as a means to interfere in the internal affairs or undermine the territorial sovereignty of other countries. Some export control regimes comprising a small group of countries can in no way compare with international treaties, either in impartiality or in universality. Maintaining bloc arrangements after the conclusion of multilateral treaties and even placing the former above the latter will only lead to the weakening of the authority and universality of multilateral treaties and subsequently affect the healthy development of the international disarmament process.

5. With regard to the nuclear weapons issue, while maintaining the nuclear non-proliferation regime the nuclear weapon states should also respond positively to the just demand by the non-nuclear weapon states for nuclear disarmament and security assurances against nuclear weapon threats. The nuclear superpowers should take the lead in substantially cutting down their large nuclear arsenals.

6. On the issue of armaments, the major powers should exercise restraint, drastically reduce military expenditures and, in particular, not conduct research, develop, deploy or proliferate much more sophisticated or more destructive weapons or weapon systems. The research, development, deployment and proliferation of missile defence systems by a certain major power are not conducive to global and regional strategic equilibrium and stability and will trigger a new round of the arms race. This has caused worldwide concern and will in the end prove detrimental to that country itself.

#### IV. China's approach

China actively promotes international disarmament and arms control.

As a big developing country, China is still at an early stage in terms of economic and social development. Economic development is China's primary and central task and will continue to be so for a long time to come. China needs and highly treasures a peaceful, secure and stable international environment for its socialist modernization drive. Proceeding from its aspiration for maintaining world peace and promoting the development of all countries, China pursues an independent foreign policy of peace and is ready to establish and develop friendly relationships with all countries on the basis of the Five Principles of Peaceful Coexistence. China stands for the settlement of international disputes by peaceful means and opposes the threat or use of force, hegemonism and power politics. China advocates the establishment of a new, fair and rational international political and economic order.

China's national defence policy is defensive in nature, with its basic objective being to consolidate national defence, resist aggression, defend national territorial sovereignty, and safeguard national unity and security. China subordinates its defence to and places it in the service of the nation's overall economic development. It does not seek regional or global hegemonism, nor does it station troops or set up any military bases in foreign countries. China's defence is not directed against nor constitutes any threat to any other country.

China has made substantial efforts towards unilateral disarmament. As early as the mid-1980s, before the end of the cold war, China announced that it would reduce its military personnel by 1 million. In 1997 the Chinese Government announced that it would again reduce its military personnel by another 500 000.

China's expenditure on national defence has over the years been kept at the lowest level necessary to ensure that the requirements for national security are met. In 1997, China's expenditure on national defence totaled \$9.8 billion, only 3.67 per cent of that of the USA, 27.53 per cent of that of the UK, 26.7 per cent of that of France, 22.79 per cent of that of Japan and 56.98 per cent of that of South Korea.

The amount of China's 1998 national defence budget was 91.59 billion yuan (c. \$11 billion), accounting for 1.1 per cent of the gross domestic product. Meanwhile, the defence budgets of the USA and Japan the same year were \$254.9 billion and \$39.4 billion, respectively, far exceeding that of China.

As a permanent member of the UN Security Council, China opposes any arms race, and supports and attaches great importance to the efforts made by international community to promote arms control and disarmament. China always stands for promoting global peace, security and stability by means of reducing and eliminating the danger of war. China has positively and comprehensively participated in international arms control and disarmament activities, putting forward many practical and rational proposals according to fair, rational, comprehensive and balanced principles and has made its due contribution to the arms control and disarmament process.

As a nuclear weapon state, China supports and participates in international nuclear non-proliferation efforts, promotes the process of nuclear disarmament, and strongly advocates the complete prohibition and complete destruction of nuclear weapons. China opposes the policy of nuclear deterrence based on the first use of nuclear weapons. China is the only nuclear weapon state which has undertaken and abided by the commitment not to be the first to use nuclear weapons at any time and under any circumstances and not to use nuclear weapons against non-nuclear weapon states or nuclear weapon-free zones. China supports the efforts of the countries concerned to establish nuclear weapon-free zones on a voluntary basis.

Having been a victim of both chemical and biological weapons, China always stands for the complete prohibition and destruction of chemical and

biological weapons. China is an original party to the CWC and has fulfilled the obligations under the convention in a serious and earnest manner. China supports the purpose and objective of the BTWC and has adopted an active and responsible approach in the negotiations on the protocol to strengthen the effectiveness of the convention.

China stands for the peaceful use of outer space and opposes any arms race in outer space. It maintains that the international community, the major powers with outer space capability in particular, should take practical steps to prevent the weaponization of and an arms race in outer space, banning all kinds of outer space weapons, including anti-missile and anti-satellite weapons, so as to keep outer space free of weapons. Measures should also be taken to ban the use of force or hostile actions in, from or to outer space, and to this end legally binding international agreements should be negotiated and concluded as soon as possible.

The Chinese Government agrees that necessary measures should be adopted to apply effective international control on the transfer of sensitive materials and technologies in order to prevent the proliferation of weapons of mass destruction and their means of delivery. At the same time, China holds that international efforts to prevent such proliferation should follow the principles of fairness and rationality and opposes a double standard whereby anti-proliferation is used as a pretext to infringe upon the sovereignty of other countries and harm normal international cooperation and exchanges in the fields of economy, trade, and science and technology.

Humankind is about to enter the 21st century of its history. It is the common aspiration of all the peace-loving countries and peoples to lead a peaceful, stable and prosperous world into the new millennium. The major powers should, on the basis of historical experiences and lessons, look ahead into the future, shoulder their due responsibilities and obligations, and make unremitting efforts to preserve world peace, international security and stability.



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## 10. Major powers and arms control: a Japanese perspective

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*Hisashi Owada*

### I. Introduction

As the cold war period came to an end, expectations for nuclear disarmament continued to rise to new heights. In fact, until recently, we have witnessed some positive and encouraging signs of nuclear disarmament and non-proliferation. The indefinite extension of the 1968 Non-Proliferation Treaty (NPT) was decided upon in 1995 amid the strong expectations on the part of the non-nuclear weapon states that nuclear disarmament will continue, leading ultimately to the elimination of nuclear weapons. The Comprehensive Nuclear Test-Ban Treaty (CTBT) was opened for signature in 1996. New nuclear weapon-free zones were created in South-East Asia (the 1995 Treaty of Bangkok) and in Africa (the 1996 Treaty of Pelindaba). Russia and the USA agreed in 1997 at Helsinki on a framework for a new Strategic Arms Reduction Treaty (a START III accord). Also in that year, the International Atomic Energy Agency (IAEA) safeguards Additional Protocol was adopted and the 1993 Chemical Weapons Convention entered into force.

The report of the Canberra Commission, announced in 1996 and completed in 1997, reflected the positive atmosphere prevailing at that time based on the assumption that the momentum for nuclear disarmament would continue, hand in hand with strengthened efforts for non-proliferation.<sup>1</sup> One could also argue that at the level of the policy makers of the nuclear weapon states, the actual driving force for nuclear disarmament was the fear of instability in the former Soviet Union which could jeopardize its ability to keep nuclear weapons under control. According to this argument, the unprecedented unilateral withdrawal of all sea- and land-based tactical nuclear weapons, announced by President George Bush and reciprocated by President Mikhail Gorbachev in 1991, was achieved under those circumstances.

Only three years after the Canberra Commission Report was completed, however, a new report on disarmament and non-proliferation came to present a much more sober picture. Often referred to as a 'wake-up' call, this report, adopted in July 1999 by the Tokyo Forum for Nuclear Non-Proliferation and Disarmament, points out that 'the fabric of international security is showing signs of unraveling'. The all-important 'US–Russia nuclear disarmament process is stalled, with adverse consequences for the global disarmament

<sup>1</sup> Canberra Commission, 'Report of the Canberra Commission on the Elimination of Nuclear Weapons', Report presented at the Conference on Disarmament, Canberra, 30 Jan. 1997, available at URL <<http://www.dfat.gov.au/cc/echome.html>>.

agenda'.<sup>2</sup> With hindsight, a cynic may argue that there never was a true momentum for nuclear disarmament. I would argue that there was a chance to develop the popular expectations of the time into a true momentum for nuclear disarmament, but that governments failed to seize that moment.

Today, it would seem that the sense of urgency is gone. A real political will for nuclear disarmament among the major nuclear weapon states is missing and, in some cases, there is even a feeling of complacency for the status quo. Perhaps content with the power game that they can now play with their nuclear weapon power status, the nuclear weapon states seem to fail to recognize the transformation of the global strategic vista of the world.

The nuclear tests conducted by India and Pakistan came as a tremendous shock in this situation, and suddenly the issue of horizontal proliferation has become, for the moment, 'the issue'. It is high time that the nuclear weapon states break loose from their preconception with 'the common interest of the nuclear weapon states' and recognize the adverse effects of their inaction. The inaction of the nuclear weapon states with regard to nuclear disarmament undermines the efforts by the international community to strengthen the international regime of non-proliferation. The central bargain struck in the NPT between nuclear weapon states and non-nuclear weapon states must be kept and pursued vigorously for the cause of nuclear non-proliferation. Without the stepped-up efforts of the nuclear weapon states, we are likely to see a much more dangerous world with the spectra of irresponsible actors posing a genuine threat to our common security with nuclear proliferation.

In this paper, I wish to focus, first, on how we may rebuild the momentum for nuclear disarmament among the major nuclear weapon states, including China. Then I shall refer to some of the regional nuclear issues which have global implications. With regard to North-East Asia, I shall deal in particular with the implications of proliferation of weapons of mass destruction (WMD) and their delivery systems and the countermeasure that it provokes in terms of ballistic missile defence.

## II. Nuclear non-proliferation and disarmament

Russia and the USA, the world's two foremost nuclear weapon states, bear the principal role in moving the world towards the ultimate goal of total nuclear disarmament.

Even during the cold war, the two nuclear superpowers were engaged in the Strategic Arms Limitation Talks (SALT), established the 1972 Anti-Ballistic Missile Treaty (ABM Treaty) and negotiated the 1991 START I Treaty. This led to greater predictability in the behaviour of the two states and, at the demise of the cold war, a partnership was forged to enhance nuclear disarma-

<sup>2</sup> Tokyo Forum for Nuclear Non-Proliferation and Disarmament, 'Facing Nuclear Dangers: An Action Plan for the 21st Century: The Report of the Tokyo Forum for Nuclear Non-Proliferation and Disarmament', Report presented at the Tokyo Forum for Nuclear Non-Proliferation, Tokyo, 23–25 July 1999, available at URL <<http://www.stimson.org/clusters/tokyoforum.html>>.

ment, leading to the successful conclusion of the 1993 START II Treaty. Today, we see a deterioration in this partnership with widening policy differences between the two powers. This has led to the refusal of the Russian Duma to ratify START II, thus paralyzing progress on START III. Yet, the accumulated build-up of cold war nuclear arsenals is no longer necessary and is detrimental for both powers. The fact that the two powers recognize this to be so, and yet do not take further action, can only be lamented. Formal negotiations on START III must commence immediately, and the target level of deployed warheads should be reduced dramatically. Ambitious initiatives are awaited to give credibility to the continuum for nuclear disarmament. In this regard, the Tokyo Forum recommended that Russia and the USA 'begin immediate reductions by dismantling deployed nuclear forces through parallel steps' and that 'both countries pledge to use this process to reduce down to 1000 deployed warheads on strategic nuclear delivery vehicles'.

Once Russia and the USA reduce their deployed nuclear warheads below 1000, China, France and the UK could be compelled to participate in global nuclear reduction negotiations. Such global nuclear disarmament discussions could proceed, on an informal basis, even in parallel with START III negotiations. The parallel responsibilities of China, France and the UK should not go unmentioned. The three nuclear weapon states should refrain from conducting nuclear weapon-related development activities or increasing their nuclear arsenals. The initiatives of France and the UK to reduce their nuclear arsenals are to be commended in this regard, as setting a good example to be followed by China.

The first step for the five nuclear weapon states should be agreement on and adherence to a moratorium on the production of fissile materials for nuclear weapons. In addition, the five nuclear weapon states should commence with preliminary talks to map out approaches for proportional reductions leading to 'one step before zero' and, thereafter, to ultimate elimination. At the outset, such preliminary talks may not produce meaningful proposals because of differences over nuclear strategy and doctrines. Nevertheless, such talks will at least enhance transparency and build confidence. Only when the five nuclear weapon states fully understand each other's capabilities and doctrines will realistic programmes for a drastic global-scale nuclear weapon reduction even take place.

Expanding our discussion to multilateral means for nuclear disarmament and non-proliferation, we have two important agenda items: the CTBT and the Fissile Material Cut-Off Treaty (FMCT).

The CTBT must be ratified urgently by those key states which are still holding out—China, India, Israel, North Korea, Pakistan, Russia and the USA. The success of the Conference to Accelerate the Ratification of the CTBT to be held in Vienna this October is going to be the key event in this regard.

The early start and conclusion of negotiations on the FMCT are the next urgent item after the CTBT, as clearly prescribed in the 'Principles and Objectives' adopted at the 1995 NPT Review and Extension Conference. Indeed,

this is the most crucial measure for nuclear non-proliferation and disarmament to the extent that it can effectively cut off the production of fissile materials for nuclear weapons.

FMCT negotiations may be complex and difficult both politically and technically. Such issues as the main scope of the treaty, the scope of the fissile materials to be covered by the treaty, the content of possible verification regimes, and the handling of existing stocks of such materials are the hardcore issues not easily susceptible to facile resolution. I can see no grounds for optimism with respect to the prospect for the FMCT negotiations. However, I can envisage pessimistic consequences if the treaty is not concluded soon. The international community should note that progress in nuclear disarmament negotiations has always been possible only through a step-by-step process but that success in concluding the FMCT will indeed be a major step forward for nuclear disarmament and non-proliferation.

### III. Response to the nuclear tests by India and Pakistan

The nuclear tests conducted by India and Pakistan in May 1998 created a totally new security situation by seriously undermining the credibility of the international non-proliferation regime. Their security implications go far beyond the confines of the peace and stability of South Asia. Not only will this new development affect the security environment of East Asia as well, to the extent that it could have an impact on the strategic vista of this region by lowering the threshold of nuclear weapons as the ultimate means which should never be used; far more important, this development, if left unattended, could lead the international community to drift into an uncontrollable world of nuclear proliferation.

The international community has condemned their nuclear testing and many nations, including Japan, have taken countermeasures. To see both India and Pakistan renounce their nuclear weapons would be extremely important, although this may not be easy to achieve in a short time. Nevertheless, international efforts to secure India's and Pakistan's adherence to the relevant international norms must be sustained. In particular, they should not be regarded as nuclear weapon states. This means that any exports of nuclear-related materials and technology to India and Pakistan should be subject to their acceptance of IAEA full-scope safeguards. India and Pakistan should never be rewarded with an international status of any privilege for what they have done.

While we must never allow India to rationalize its nuclear development programme by invoking the inertia of the global nuclear disarmament process, it is important to work towards facilitating the reconciliation process among the parties concerned on the subcontinent to reduce nuclear dangers.

It is not hard to imagine that an important factor affecting India's decision for nuclear development is its broader regional security concerns, including

China. In fact, the newly proposed nuclear doctrine of India does indicate that India is seeking nuclear parity with China. In order to meet the security concerns of India in this broader context, going beyond the confines of the Indian subcontinent, it would seem essential that some framework of mutual reassurance on the non-use of nuclear weapons, involving both China and India, be consolidated through intensified dialogues and greater transparency about their nuclear weapons and intentions.

It is true that China has declared the no-first-use of nuclear weapons, as well as its pledge on unconditional negative security assurances to non-nuclear weapon states. That in and of itself, however, will not be enough to create the kind of framework for such mutual reassurance that I have mentioned. In any case, the problem that China poses to the world is its lack of transparency regarding its nuclear deployment and capabilities. China insists that its nuclear policy as a nuclear doctrine is very transparent and that, owing to the small size of its nuclear forces, a degree of lack of transparency regarding nuclear capabilities is inevitable in order to maintain its nuclear deterrence capability. Whatever validity such logic may have had during the cold war era, when China was placed in the midst of the confrontation between the two overwhelming nuclear giants, the logic cannot claim any degree of credibility in the present circumstances. Today, China is the only nation of the five nuclear weapon states that has not reduced its nuclear weapons. It is submitted that the challenge by India and Pakistan to the international regime of nuclear non-proliferation can only be resolved in a conclusive manner in the context of solving the strategic dilemma that the two countries have to face in the broader setting of a regional security framework, including China.

#### IV. Regional issues of global implications

Fears of further nuclear proliferation are growing, ignited by the nuclear tests by India and Pakistan. There is a pressing need for measures to stop and reverse the penchant for nuclear proliferation in the Middle East and North-East Asia. The causes and characteristics of this penchant are different for each region, and thus the international community must weigh in these differences to find the right responses.

In the Middle East, the continuation of a successful Arab–Israeli peace process is of crucial importance for the stability of the region and for the future of nuclear non-proliferation. Here, the process of peace and that of WMD disarmament should proceed in parallel. In the case of North-East Asia, on the other hand, the international community has had to address the threat of proliferation of WMD, including their delivery systems, as posed by North Korea.

The nuclear development issue was addressed in the 1994 North Korean–US Agreed Framework (AF). A product of the AF, the Korean Peninsula Energy Development Organization (KEDO) agreement provides the most realistic and effective basis for preventing North Korea's nuclear weapon development.

This is the reason why Japan decided to offer financial support for KEDO even after the North Korean missile launch on 31 August 1998.

The importance of KEDO in the global context is under-appreciated. Were this to fail, the spillover would naturally be global. Our European colleagues should keep their active interest in, and provide full support for, KEDO.

It is in the same context that the ballistic missile development programme of North Korea poses a major security concern for the region. North Korea fired a medium-range Taepo-Dong missile over Japan on 31 August 1998, which stunned Tokyo, and the USA as well. Thus the USA has been insisting on the stopping of further launches of ballistic missiles by North Korea. A bilateral agreement was reached in Berlin in mid-September whereby North Korea agreed to freeze test-launches of its missiles while negotiations between North Korea and the USA continue.

There is as yet, however, no final commitment to forgo missile launches and the issue of exports of missile technology has not yet been addressed. It is against this clear and present danger that Japan and the USA have agreed to engage in the joint study of a ballistic missile defence system. A programme for joint technology research is to start for Navy Theater Wide Missile Defense based on their bilateral Mutual Defense Assistance Agreement.

This new development in a 'missile defence system' in the Far East is attracting wide attention among disarmament experts. The argument for the validity of nuclear deterrence during the cold war ran, in layman's language, along the line of the doctrine of 'the invincible sword without the shield'. The 'sword' here represented the highly survivable second-strike retaliation capability, and the 'shield', in the form of a missile defence system deployment, was strictly regulated under the ABM Treaty. This logic provided the basis for the strategy of mutual assured destruction between the Soviet Union and the USA.

In strategic terms, Japan's security has been dependent upon the US nuclear umbrella and the US forward deployment of well-equipped armed forces. However, the prospect for proliferation of WMD and ballistic missiles especially to North Korea gives rise to the question of how to defend Japan from such asymmetrical threats where the nuclear shield offered by the USA may not be totally effective as deterrence. In this situation, Japan, lacking in any deterrent capability of its own, may have to consider as an option the introduction of 'the shield without having any sword'.

Furthermore, we have to consider seriously the co-relation between the deployment of missile defence systems and disarmament in this particular case. It is being argued that theatre missile defence (TMD) is detrimental to disarmament efforts and should therefore be abandoned. The argument goes that, given the technological limitation of the interception ratio of TMD ('hitting the bullet by the bullet'), opposing states are likely to increase their missile strike capability to penetrate the defence system and this would lead to further arms development.

It could be argued with equal force, however, that TMD might even be an incentive for disarmament. If technologically well-developed TMD is deployed, it may become pointless for neighbouring countries to have a ballistic missile capability or to pursue their further development. Two experiences during the cold war are often mentioned in this regard. One is NATO's 'dual-track approach' which combined intermediate-range nuclear forces (INF) deployment and arms control, leading in the end to the 'zero-zero option' of the INF Treaty in 1987. Another is the Strategic Defense Initiative programme, which is believed to have pressured the Soviet Union to give up its military rivalry with the USA.

It is submitted that it is as yet too early to judge the validity of these arguments in the concrete context of the East Asian setting. The arguments are dependent on how much progress can be expected on technological development of TMD and on how we assess the results of these developments in the concrete situation. At this stage, China and North Korea are critical of TMD research by Japan and often insist that its future deployment will lead to a regional arms race. It should be kept in mind, first of all, that the situation that has led to the current decision on TMD research was not created by Japan. It would indeed be a curious argument to insist that TMD research, and not the initial nuclear development which triggered this defensive reaction, is to be blamed as the root cause for a regional arms race.

I also wish to stress that TMD technology does not yet exist and that Japan has only started joint research with the USA. Naturally, through this joint research, Japan and the USA should study not only the technical feasibility of such a defence system against missile attacks but also the strategic and diplomatic implications of such TMD deployment. The effectiveness and viability of TMD would have to take into account the political and psychological reaction of neighbouring countries. Dialogue among the experts of these countries would be important in coming to a final decision on this matter.

I submit that it would be assuming the conclusion at this stage to argue that TMD deployment will inevitably undermine regional security, before a thorough examination is made of the technological feasibility as well as strategic and diplomatic impact of such TMD deployment. We should avoid basing arguments on speculation and hypotheses. It should be possible to promote both technological research and political dialogue with neighbouring countries on the TMD issue, in parallel with each other.

## V. Conclusion

The most important point in our discussion on the issue of nuclear disarmament is for us to be sufficiently tenacious not to lose our ultimate goal, while at the same time sufficiently realistic not to drive the nuclear weapon states totally to reject the proposed solutions. It is obvious that a proposal on which the nuclear weapon states have no room for consideration cannot become a

feasible agenda for nuclear disarmament. On the other hand, without tenacious efforts to press forward towards further nuclear disarmament, we are likely to see no progress on nuclear disarmament on the part of the nuclear weapon states and further erosion of the non-proliferation regime. In this respect, the major non-nuclear weapon states can play an important positive role in strengthening the non-proliferation regime while pressuring the nuclear weapon states to make more serious efforts for nuclear disarmament.

In facing the new millennium, we must renew our hope to eliminate the threat of weapons of mass destruction to human security. Needless to say, the disarmament process is closely and inseparably linked with the national security of the countries involved in the process. In that sense, efforts for disarmament can never succeed if we forget or ignore the essential factors of the vital national security considerations of the parties involved, especially those of the major players in the process. At the same time, however, progress in disarmament must not be held hostage to such factors. The political will of states to pursue disarmament will have to be inspired through the tenacious process of persuasion that such a course will be in their long-term interest and that of the international community as a whole.



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# 11. Towards a cooperative arms control regime

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*Sergey Rogov*

## I. Introduction

The existing arms control regimes were inherited from the cold war. We are now at a crossroads. Either we form a new concept of arms control to replace the one that was created during the cold war era of bipolar conflict, or the entire set of existing arms control agreements may become irrelevant and ineffective.

During the cold war arms control was understood as a set of rules accepted by the two superpowers, which were engaged in a global confrontation, to ensure that their competition would be less risky, more predictable and less costly and at the same time to fix their special status in the international system.

Arms control was never meant to end the Soviet–US global rivalry; it had a much more limited purpose, namely, to regulate the competition between the Soviet Union and the USA by technical arrangements, establishing equal ceilings for certain weapon systems. Sometimes this ceiling could be as low as ‘zero’, but for the most part the limits were rather high, although still limiting the build-up of these weapons. Other agreements regulated not numbers but certain types of military activity, for instance, non-deployment of nuclear weapons in space and non-deployment of territorial anti-ballistic missile (ABM) systems, a ban on nuclear tests in three environments or the limitations on military exercises.

By agreeing on ‘what is not to be done’, Moscow and Washington created the *negative* rules of the game, because they felt free to engage in anything which was not specifically prohibited or restricted by these arrangements. The process of arms control negotiations after the late 1960s dominated the Soviet–US diplomatic agenda. There was not much else for the two superpowers to talk about during the cold war era.

### **The mutual deterrence paradigm**

During the cold war, nuclear weapons acquired the function of deterrence—preventing the use of the nuclear weapons and military force in general against each other. Nuclear deterrence was recognized as the only politically meaningful nuclear posture, at least at the declaratory level. Instead of a war-fighting function, deterrence became the cornerstone rationale for nuclear weapons.

It is not always recognized that the model of mutual nuclear deterrence and a 'pure' nuclear deterrence posture are not exactly the same thing. A nuclear deterrence posture may not be directed against a particular country, even if this country possesses nuclear weapons. For instance, while France and the UK rely on nuclear deterrence, they are not engaged in mutual nuclear deterrence vis-à-vis each other, even if they may sometimes strongly disagree on some issues. Nor is there mutual nuclear deterrence between the USA and each of these two countries.

The nuclear deterrence model based on mutual assured destruction (MAD) is unique in that it exists only in Russian–US relations, not at the other layers. Both superpowers subscribed to the mutual deterrence model, which was developed after the Cuban missile crisis and was accepted by the USA and the USSR at the beginning of the 1990s. Both sides codified the rules for managing the nuclear arms race between them.

The main elements of this system are: (a) a preoccupation with numerical parity; (b) a reliance on counter-force weapons; (c) the theoretical possibility of a pre-emptive strike; (d) dependence on early warning; (e) launch on warning; (f) the possibility of horizontal and vertical escalation; (g) the assumption that a strategic offensive capability is stabilizing and a defensive capability destabilizing; (h) a decoupling of conventional from nuclear weapons; and (i) 'uncertainty' or a lack of transparency.

The cold war brinkmanship required well-calculated strategic measures to permanently maintain the threat to the other side. Mutual nuclear deterrence is based on the dubious philosophical premise that you posture nuclear weapons in a way that demonstrates your ability to act irrationally, for by threatening to act irrationally you force the other side to behave rationally and not to cross a certain threshold. This is 'a dialectical contradiction': you demonstrate that you can cross this threshold as a means to prevent the other side from doing so.

The MAD concept was accepted and adopted as the highest wisdom. It was formalized and fixed by the 1991 and 1993 Strategic Arms Limitation Treaties (START I and START II, respectively) and the 1972 Anti-Ballistic Missile Treaty (ABM Treaty).

### **The system of strategic stability**

At the end of the cold war we had a regime that had been imposed by the USA and the USSR and supported by arms control agreements. The discipline of the bipolar world rigidly maintained the inequality of the participants in international relations—the great majority of them were forbidden to do what was allowed for the nuclear superpowers. Any effort to openly violate these rules was both senseless (who could compete in an arms race with the Soviet Union and the USA?) and dangerous (the superpowers could launch a preventive attack). Furthermore, regional conflicts were immediately transformed into

areas of confrontation of the superpowers, supporting opposing parties but guaranteeing that conventional conflicts would not escalate into nuclear war.

The system of strategic stability during the cold war established different rules of the game for different countries—a hierarchy of strategic stability with three levels.

At the top level of the cold war nuclear strategic stability were the USA and the USSR, whose posture was based on the MAD concept or mutual nuclear deterrence. The two superpowers developed the notion of their special privilege as the owners of 98 per cent of the nuclear weapons of the world.

The middle level consisted of three other declared nuclear weapon states (China, France and the UK), which were restricted in their holding of nuclear weapons. A completely different set of rules applied to them, ensuring that they could not challenge the two superpowers.

The third group comprised the rest of the world, which by the 1968 Non-Proliferation Treaty (NPT) was prohibited from acquiring nuclear weapons.

Although a dozen medium-size and small states had begun their own nuclear programmes, none of them decided to openly cross the nuclear threshold—the door to the nuclear club for them was tightly closed. The NPT regime legally consolidated the double standards of the superpowers and made it impossible to upgrade the status of all other countries—not only the dozen threshold nuclear states, but also Japan and the Federal Republic of Germany, which had restored their economic power but were deprived of the opportunity to build up corresponding military muscle.

## II. New challenges for arms control

### **Managing a polycentric world**

Russia and the USA are no longer engaged in the ideological and political rivalry which produced the need for mutual nuclear deterrence. Today and for the foreseeable future, they do not have any reasons to engage in a nuclear confrontation. The threat of a global nuclear war, which was quite real at the height of the cold war, is now close to zero.

The end of the cold war produced the end of the bipolar system. The world has become much more polycentric than before and Russian–US relations do not play the central role in the post-cold war international system. Other forms of interaction in the international sphere, reflecting the growing economic might of the new centres of power in the world, have replaced Soviet–US competition as the dominant relationship.

In world history, with rare exceptions (Carthage and Rome, the USSR and the USA), international relations have practically always had a polycentric character. The constant change in the balance of power among the largest states and coalitions regularly resulted in infringements of the geopolitical balance and in military conflicts, causing a rearrangement of the world in accordance with the new distribution of power.

### **New approaches**

New centres of power are no longer willing to forever reconcile themselves to a minor status in the international arena. The end of the bloc opposition has undermined the rigid discipline which the bipolar system imposed on all other countries. In its wake there has been a largely uncontrolled diffusion of power. The changes in the balance of economic power are beginning to be more and more obviously reflected in a correlation of forces in the military sphere. This may result in new attempts to redivide the world in accordance with a new geopolitical reality. The maintenance of stability in a multipolar world, where instead of the two superpowers a dozen centres of power actively defend their interests, is by definition a much more difficult task.

It is necessary to take into account the main present challenges to international security: (a) the disorderly diffusion of power, especially the proliferation of nuclear, chemical, biological and sophisticated conventional weapons; (b) abrupt changes in the global balance of power; and (c) efforts to use military force for political purposes.

Today this three-level hierarchy is under pressure. India and Pakistan have violated the old regime by testing their nuclear weapons, and China is engaged in a serious effort to modernize its nuclear forces. At the same time other nuclear weapon states do not even want to join Washington and Moscow in any formal nuclear arms control reductions.

There is a race against time. Will we be able to establish a new system to manage the multipolar balance of power, or will this diffusion of power continue in a disorganized way and sooner or later undermine the post-cold war world order?

### **The Revolution in Military Affairs**

Another challenge for arms control is related to the technological progress of the so-called Revolution in Military Affairs (RMA). The RMA concept has been actively promoted by the US military as the foundation for US military strategy at the beginning of the 21st century. The USA is focused on global power projection, based on US technological superiority. The notion of the RMA goes beyond just spectacular improvements in military technology. It relies on the application of new information technologies to create 'the system of systems' to achieve comprehensive battlefield dominance. The RMA can be defined as a fundamental change in doctrine, weapons, equipment, force structure organization and training of the military, which produces a decisive advantage in warfare methods to achieve strategic objectives in a minimum time with minimum losses. The RMA is intended to integrate all components of combat power into a system of systems to provide the Pentagon with 'full spectrum dominance'.

The new military doctrine, reflecting the RMA, relies on new intelligence, surveillance and reconnaissance technologies and weapon systems, on the one hand, and on sophisticated and innovative war-fighting and flexible logistics concepts, on the other hand. It also includes technological breakthroughs in the collection, processing and analysis of information, which allows for a drastic reduction in (but not elimination of) the fog of war. The new means to improve battlefield awareness are supposed to produce a constant and complete three-dimensional picture of the battlefield. Information superiority is for the first time recognized as the key factor for achieving battle dominance through the ability to find, track and precisely target any military objective, worldwide.

The RMA aims at a complete transformation of military notions of time and space—the traditional concepts of manoeuvre, firepower, protection and sustainment. It accelerates the pace of movement and engagement and reduces the importance of concentration of forces in space because new long-range weapons could be used from a greater distance with a high degree of accuracy. It allows widely dispersed forces to apply decisive firepower against enemy targets through precision engagement.

The RMA emphasizes the need to develop capabilities for full-dimensional protection, which is achieved through passive means (e.g., dispersion and rapid movement of forces) and active means (air and missile defences). Protection of military assets also includes defence of globally distributed sensors, communications and processing networks, but the main method of protection of military and economic/civilian assets is the destruction of enemy forces so that they are not able to fight back—outside the range of enemy firepower.

The RMA presents major challenges to the fundamental elements of arms control.

The USA seems to be the only country willing to allocate a large portion of its national resources for both development and procurement of RMA military systems. Neither its West European allies nor Japan commit a great deal of resources to this purpose. Russia is engaged in RMA-related research and development to a very small extent, while China and India spend money on the procurement of state-of-the-art fourth-generation weapons. The USA is engaged in the new arms race alone and has no incentives to make unilateral concessions.

The cost of the new generation of weapons and equipment, combined with budget limitations, will make it very difficult to modernize the military in accordance with the requirements of the RMA. Thus the focus will be on an evolutionary strategy in which, instead of replacing fourth-generation weapons, they will be updated with new information technologies (digital sub-systems) so that they can remain in service for several decades. The procurement of totally new weapon systems will be protracted for several decades.

The RMA makes traditional military-balance calculations irrelevant. The 1990 Treaty on Conventional Armed Forces in Europe and other arms control limitations (with the exception of the ABM Treaty) do not take into account

the command, control, communication, computers, intelligence, surveillance and reconnaissance (C<sup>4</sup>ISR) capabilities which are becoming crucial for war-fighting purposes. The efforts to control the military implications of new information technologies hardly promise much success. The emphasis on dispersion of forces and the extension of weapon ranges also reduces the importance of deployment limitations, buffer zones, and so on.

Apparently, the RMA permits a bridging of the gap between nuclear and conventional weapons but, as the Kosovo air campaign demonstrated, precision-guided munitions (PGMs) are much less efficient against military than against urban economic targets. The NATO operation in Kosovo (90 per cent US forces) was able to destroy the economic infrastructure of Yugoslavia, while delivering only limited damage to the military machine of President Slobodan Milosevic. RMA systems, however, can threaten many strategic targets, including early-warning systems, which are crucial for the maintenance of credible nuclear deterrence.

The use of PGMs against non-hardened strategic targets, attacks against the C<sup>4</sup>ISR capabilities of the other side and ballistic missile defence (BMD) plans may lead to the temptation to pre-emptively use nuclear forces, especially if the other side lacks the conventional means to resist the RMA power. The ABM Treaty limitations on ground-based phased-array radars lose all meaning with the deployment of space sensors.

Naturally, the USA is not enthusiastic about giving up unilateral advantages in the new military technologies, which no one else is able to match. Of course, the goal of absolute invulnerability, or as Cohen put it, 'freedom from attack and freedom to attack',<sup>1</sup> is totally incompatible with arms control. There is a growing trend in Washington to act unilaterally, which is reflected not only in the US refusal to ratify the 1996 Comprehensive Nuclear Test-Ban Treaty and the threat to withdraw from the ABM Treaty, but also in military operations, including the war against Yugoslavia.

The RMA may encourage greater reliance on nuclear weapons by other countries. This is reflected by Russia's growing emphasis on early use of nuclear weapons. China and India give top priority to their build-up of nuclear forces. Some other countries may also do so in the future or may create incentives for other countries to acquire them. Thus the RMA can completely undermine the cold war-period arms control regimes, which were based on selective choice of weapons and the notion of parity.

### III. The last stage of mutual nuclear deterrence?

At the present time, the relations between Russia and the West include contradictory components: on the one hand, we carry a strong legacy of the cold war (including the built-in MAD inertia); and, on the other hand, we have accumu-

<sup>1</sup> William S. Cohen, Secretary of Defense, Annual Report to the President and the Congress 1999, p. 124.

lated some limited experience in military and political cooperation. The task is to reduce and eliminate the competitive elements and to build up an institutionalized framework for cooperation. This can be achieved through a step-by-step process.

The arms control situation presents immediate and long-term challenges. The immediate problem is to preserve and advance the arms control regime we inherited from the cold war but failed to modernize in the 1990s. The long-term task is to develop a strategy to change the fundamental elements of Russian–US security interaction and replace strategic stability based on MAD with a more cooperative relationship.

The model of mutual nuclear deterrence survived the end of the Soviet–US ideological and political rivalry, the collapse of the USSR and the end of the cold war. It has turned out that MAD has a life of its own, even when the sources of conflict between the two countries have withered away. The weapons, their deployment and operation, the command and control systems, the training of personnel, and so on cannot be changed as quickly as the political factors. Nuclear policy apparently has a stronger inertia and in fact a life of its own. So a decade after the end of the cold war Russia and the USA continue to maintain readiness at any moment to eliminate each other as civilized nations within 30 minutes.

What is wrong with the present model of Russian–US interaction in the strategic nuclear field? The ideological sources of the conflict between Moscow and Washington disappeared when the Soviet Union was dissolved and Russia initiated reforms aimed at a transition to a market economy and political democracy. This opened the possibility for a new, much more positive relationship between Russia and the USA, based on a new set of *positive* rules of the game (‘what should be done’) and the creation of an effective mechanism to coordinate the policies of the two countries.

Cooperative threat reduction, arms control agreements, presidential initiatives and numerous confidence-building measures (CBMs) have brought about many positive changes in the strategic posture of both Russia and the USA. In 1993 Russia and the USA proclaimed a strategic partnership, but this declaration has had little effect—probably because a strategic partnership is simply incompatible with mutual assured destruction. Any agreement to de-target the weapons is only a gimmick because they can probably be re-targeted within a few minutes.

Meanwhile, the Russian–US arms control process of the mid-1990s lost momentum. In January 1993 Russia and the USA signed the START II Treaty, which was supposed to bring the Russian and US strategic nuclear forces down from 6000 warheads, as envisaged by the START I Treaty, to 3000–3500 warheads and eliminate all the intercontinental ballistic missiles equipped with multiple independently targetable re-entry vehicles. The proposed START III ceilings seemed to be the only way to synchronize Russia’s inevitable unilateral reductions with the parallel and proportionate decrease of the nuclear potential of the USA. However, if the START II

Treaty is not implemented, the USA may choose another approach—to keep its nuclear forces at the START I level, quietly observing how the Russian nuclear potential will decrease to minimum levels.

A much more serious challenge to the existing arms control regime is posed by the US effort to remove the limitations on strategic defences imposed by the ABM Treaty. In 1999 the USA announced its new approach to national BMD and accelerated the deployment of theatre missile defences. The Clinton Administration claimed that its missile defence plans have the narrow aim of foiling the limited threat from ‘rogue states’, not of altering the strategic balance between Russia and the USA.

The US domestic debate, echoing the arguments of the mid-1980s about President Ronald Reagan’s ‘Star Wars’ initiative, is not only about the scope and imminence of the ballistic missile threat from such countries as Iran and North Korea, but also about whether Russia should be accommodated as a potential strategic partner of the USA or rebuffed as a still-threatening rival. The hawks—mostly conservative Republicans, but some Democrats as well—see the two issues as inextricably linked because in their view any attempt to accommodate Russia increases the US’ vulnerability to attack by other countries.

In 1999 the US Congress passed a bipartisan bill that would make it the policy of the USA ‘to deploy as soon as it is technologically possible an effective National Missile Defense [NMD] system capable of defending the territory of the United States against limited ballistic missile attack’. US deployment of NMD can present an immediate threat to the mutual nuclear deterrence model. The situation may change, however, if Russia and the USA again enter into a protracted confrontation. The fact is that even a ‘limited’ NMD system will contradict the key provision of the ABM Treaty, which prohibits creating any territorial ABM defence.

The BMD issue is not going to disappear from the US agenda. The next administration will begin deployment of both theatre and national ballistic missile defences. If this is done without an agreement with Russia, the outcome might be not only no START III accord but also a Russian decision not to adhere to the START II and START I treaties or the 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles.

### **New parameters for the Russian–US arms control regime**

It is time to begin preparing for difficult, serious talks which may go beyond the bounds of updating the ABM Treaty provisions and require a reinterpretation of the entire system of measures for ensuring military–strategic stability.

Russia and the USA have to agree on the new parameters of the offensive–defensive equation or the entire arms control regime will collapse. It is possible to reach a compromise which would include a new configuration for a START III accord and modest modification of the ABM Treaty. This package



may be perceived as the last arms control agreement within the mutual nuclear deterrence model. Further arrangements would require Russia and the USA to go beyond the model of mutual nuclear deterrence.

The two sides have to agree on the lowest possible level of nuclear weapons that does not require a fundamental change in the existing nuclear postures, which have been based on MAD.

What could be the possible components of the new strategic arms control agreements? Russia will probably be interested in a low, affordable ceiling for strategic nuclear missile warheads, that is, 1000. Russia cannot accept the level of 2500 for START III that was tentatively agreed by Clinton and Yeltsin at the 1997 Helsinki Summit and will insist on much deeper reductions. The entire set of strategic missile and bomber warheads should be not be more than 1500.

The problem of tactical nuclear warheads must also be addressed, but it would overload the upcoming time-constrained negotiations to include them in a START III–ABM Treaty modification package. We can agree to parallel political commitments—along the lines of the unilateral reductions announced by Presidents George Bush and Mikhail Gorbachev in 1991—for example, to establish ceilings of 1500–2500 for tactical nuclear weapons.

The new agreements should deal with both deployed and non-deployed nuclear weapons. A possible new approach to START III might include a combination of lower traditional numerical ceilings and different levels of alert.

The first layer could be, for instance, no more than 500 nuclear weapons on ‘high alert’ (high alert could be defined as a capability to launch within a few seconds or minutes).

The second layer might be 500 or 1000 ‘low alert’ nuclear weapons, which could be launched within several days or weeks.

The third layer might include another 1000 nuclear weapons on ‘zero alert’, which are stored by the military and kept as their ‘strategic reserve’.

The final group will be the components of nuclear warheads maintained at industrial facilities for assembly and disassembly. The number of weapons there can hardly be strictly defined, but the perimeter of these facilities can be easily controlled so that movement of warheads in and out will be verified.

All these components would be subject to verification and (except the industrial facilities) on-site inspection, which effectively prevents the clandestine transfer of nuclear weapons from one layer to another. Any effort to raise the number of high-alert weapons without an agreement between the parties will be tantamount to a declaration of intention to pre-empt.

This approach permits a drastic reduction of the prompt counterforce hard-target capabilities to the extent that a surprise disarming and decapitating attack becomes unfeasible. It is impossible to exercise any rational pre-emptive counterforce strike with only 500 high-alert nuclear weapons. At the same time, the relatively large number of weapons on ‘low’ and ‘zero’ alert creates a robust Russian and US nuclear posture that sends a message to China

and any other possible challenger not to try to catch up with the nuclear superpowers.

These steps would not change the essence of mutual nuclear deterrence but would allow it to be maintained at a relatively low level and prepare the conditions for a fundamental change in strategic interaction.

The elimination or drastic reduction of the counterforce strike scenario allows for a compromise on the ABM Treaty while maintaining its essence—the prohibition of territorial missile defences. These prohibitions include both the interceptors and battle management systems.

The US proposals for two sites and 200–250 interceptors may be too high, but in principle it is possible to achieve an agreement, for instance, to change the 1974 Protocol to the ABM Treaty and agree on two sites and 100 or 150 interceptors.

A possible solution may require the establishment of a common ceiling for offensive missiles and ABM interceptor missiles. For instance, Russia and the USA can agree to have no more than 600 launchers of both types. Thus, if the USA wants to deploy more than 100 interceptors it has to reduce accordingly the number of its offensive missiles. This would create predictability and would restrain the USA from pursuing a ‘thick’ territorial defence.

It is absolutely necessary to maintain the prohibition on space-based interceptors, and sea-based ‘tactical’ interceptors should not be allowed to be integrated into an NMD battle management system.

It is crucial to limit the capabilities of the battle management system, which will include new X-band radars and space-based sensors—Space-Based Infra-Red System (SBIRS)-High and especially SBIRS-Low. Only new technical restrictions on the battle management system could permit limitation of the capabilities of ‘limited’ national ballistic missile defences. The perceived threat from North Korea or Iran does not require the elaborate architecture of battle management that is envisaged today in the USA. These restrictions can limit the numbers and the characteristics of X-band radars and SBIRS-Low and prevent the USA from quickly moving from limited defences to ‘thick’ strategic BMD. For instance, the USA will agree to put into orbit 4 or 6 instead of 24 SBIRS-Low satellites, which will be technically limited in their lifetime and not permitted to manoeuvre.

Without trying to immediately overcome the legacy of mutual deterrence, we can begin to rethink the relationship between offensive and defensive systems and go as far as this model permits. The arrangement proposed above can work until the end of the next decade. It will help to stabilize Russian–US relations while Russia will be moving to institutionalize political democracy and a market economy.

#### IV. Beyond arms control

The immediate agenda is to stop the deterioration of relations between Russia and the West, to prevent the arms control regimes from collapse and to achieve operational mechanisms for cooperation in the security field.

Agreements on lower levels of nuclear weapons and verified warhead dismantlement will be on the arms control agenda for the next 10 years, roughly through 2010. During this period, bilateral mutual nuclear deterrence will continue. After this point, it might be possible to look more carefully at the possibilities for transition to a different model of relationship between the Russian and US nuclear postures.

The idea of security partnership is incompatible with the reality of mutual nuclear deterrence as it exists today between Russia and the USA, although it need not be incompatible with the concept of nuclear deterrence *per se*. For Russian–US cooperation and coordination to become a true partnership it will be necessary to dismantle mutual nuclear deterrence and move towards generalized nuclear deterrence. Making this transition would be difficult, but the relationship between France and the UK showed that the mere ability of these two states to destroy each other did not necessarily lead to mutual deterrence. The key to this relationship is the commonality of political and economic goals.

In 10 or 15 years Russia and the USA may reach the end-point—the stage at which the features of mutual nuclear deterrence can be abandoned. The new cooperative strategic nuclear relationship may require not an arms control treaty but agreements of a qualitatively different type—something more like a mutual security treaty, regulating positive interaction between close partners. That will also be the stage at which the premises of the ABM Treaty may be radically reconsidered.

Institutionalizing cooperation on strategic issues is a very important first step towards replacing mutual nuclear deterrence with general nuclear deterrence. Transparency and CBMs could address some of the current problems, for instance, the concern about rapid reload capabilities. In the future, steps such as de-alerting rather than restructuring and reducing deployed forces would be a more fruitful course for bilateral nuclear arms control. The structure of existing nuclear arsenals would have to be revised. The organization of strategic forces and the nuclear doctrines of both sides would have to be modified. Naturally, Russia and the USA will maintain their nuclear deterrence but, like France and the UK, they will not be locked into an adversary model of mutual nuclear deterrence.

An arms control regime might still be necessary but then it will have to be multilateral and include not only Russia and the USA but also other major international players such as China. By that time it will also become possible to involve other nuclear weapon states in a legally binding arms control process. Deeper reductions will depend on the willingness of China and the other declared nuclear weapon states to join a multilateral regime and on the results

of international efforts to roll back the nuclear postures of the non-declared nuclear weapon states (India, Israel and Pakistan).

By definition, the management of arms control in a polycentric world will be a more difficult task than the maintenance of strategic stability during the cold war. The arms control regime of the 21st century will require new principles and methods.

There is a need to create a new international security system, bringing together the former cold war rivals and the new contenders for power. Recent developments have demonstrated that, without the creation of a reliable international security system, events in the world arena could go in an extremely dangerous direction. However dangerous the present situation is, it is not hopeless.

Thus the present crisis of the arms control regime inherited from the cold war era presents not only a challenge but also an opportunity—to maintain and strengthen the positive achievements of the previous period, to get rid of the institutionalized rules of rivalry and, step-by-step, to build new mechanisms for the maintenance of peace and stability, based on strong positive cooperation.

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## Part III

Arms control in transition: in search of a new organizing principle

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## 12. The future arms control agenda: escaping the prison of the past

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*Terence Taylor*

### I. Introduction

In examining a future arms control agenda any analysis cannot escape the domination of the existing treaties and their regimes. However, the treaties themselves are prisoners, in important respects, of the time in which they were negotiated. A clear understanding of the constraints of this factor is essential for enhancing their successful implementation and adaptation. Such an understanding will help not only with existing treaties but also with the negotiation of new ones. A failure to appreciate the limits of treaties—in their political, economic, scientific and technical dimensions—can result in less security rather than more. At its extreme, the most dangerous aspect is an almost ideological drive to enforce the implementation or negotiation of a treaty without taking full account of these limits. For example, the possibilities for effective verification of compliance with a treaty depend on the scientific and technical nature of the subject of the treaty. It is easier to verify the presence or absence of a missile with clearly defined characteristics than to monitor a wide range of activities in the chemical or biotechnology industry.

### II. Revival of arms control

At the end of the cold war it seemed as if arms control had become an unfashionable phrase. In the perception of some, it even acquired pejorative overtones. Books and articles appeared with such titles as *House of Cards—Why Arms Control Must Fail* or, perhaps with a title more apt for this conference, *Arms Control—What Next?*<sup>1</sup> These authors were rightly challenging the conventional wisdom, but unfortunately some of the cold war era attitude to treaties still prevails. This is particularly true in the sense of seeing treaties as global instruments at the leading edge of arms reduction or elimination detached from the deep-rooted regional security concerns such as those in the Middle East, South Asia and the Korean peninsula. However, the second half of the 1990s, despite setbacks, has seen a revival of arms control in some important respects. This is illustrated by such developments as the indefinite extension of the 1968 Non-Proliferation Treaty (NPT) along with its increase

<sup>1</sup> Gray, C. S., *House of Cards—Why Arms Control Must Fail* (Cornell University Press: Ithaca, N.Y., 1992); and Dunn, A. L. and Squassoni, S., *Arms Control—What Next?* (Westview Press: Boulder, Colo., 1993).

in membership and the entry into force of the 1993 Chemical Weapons Convention (CWC) and its increasing number of adherents. Also, with the events in South Asia and North Korea, it is easy to overlook the fact that there are now fewer states with active nuclear weapon programmes than at the start of the decade. When arms control regimes are perceived to have failed it can be the result of a failure to appreciate the limits of treaties and their place in international security policy. Some would see the opening for signature of the 1996 Comprehensive Nuclear Test-Ban Treaty and the 1997 Anti-Personnel Mines Convention as successes—others would point to failure of certain important states not joining these treaties as serious setbacks which undermine the norms set out in these accords.

In thinking about the future arms control agenda there is a danger in falling into compartmentalized thinking about the treaties themselves. This is particularly true of the nuclear treaties. A sound analysis must encompass both legally and politically binding arrangements, non-proliferation and confidence-building measures (CBMs). These arrangements might be multi-lateral, bilateral or unilateral. Limits must be set somewhere; thus, for the purpose of my remarks, excluded are policy and plans for war-fighting and the destruction of weapons and their production facilities by military action. As always, the real world undermines attempts to draw conceptual boundaries in thinking about arms control and security policy. In addition to disarmament or arms limitation by military action and negotiation, there is a third means, which is by imposition. The 1919 Versailles Treaty is an early 20th century example, but a more recent one is the UN Security Council's mandate for the United Nations Special Commission on Iraq (UNSCOM) and the International Atomic Energy Agency (IAEA) to dismantle Iraq's weapons of mass destruction (WMD) and missile programmes. This task is astride the boundary described above. On the one hand, the mandate derives from a ceasefire arrangement imposed on a losing side after a war; on the other hand, it deals with breaches of arms control treaty obligations to which Iraq is a party. However, this does not undermine the utility of a conceptual boundary. On the contrary, it can enhance understanding by making clear the limits of arms control treaties and agreements. It also helps make clear which lessons from Iraq are relevant for arms control and which are not. It is important to take into account activities outside but related to the treaties. For example, the 1994 Framework Agreement, involving Japan, the European Union, South Korea and the USA, is an important part of the process by which North Korea may be brought back into compliance with the NPT. Also legitimately part of the arms control agenda is the bilateral leverage exercised very recently by the USA in stemming North Korea's long-range missile programme—which, while its relationship to WMD is obvious, is not an activity directly related to a legally binding treaty regime. In dealing with these difficult cases, extra-treaty arrangements, perhaps associated with a regional or bilateral agreement,



may be more successful than attempting to modify treaties or working solely through the treaty organizations.

To expand on the thought that treaties are prisoners of their time a brief examination of the three principal WMD treaties—the 1972 Biological and Toxin Weapons Convention (BTWC), the CWC and the NPT—will serve to illustrate this perspective. The discussion is confined to three aspects: political, economic and technical (or scientific). Before doing so a cautionary reminder is necessary that these weapon treaties deal almost entirely with the supply side of the weapon proliferation problem. They take second place to resolution of the political, ethnic and social conflicts that give rise to weapons of all kinds.

The implementation of the NPT has a particular political and historical difficulty to overcome in that the treaty recognizes five nuclear weapon states, while all other parties undertake not to develop or acquire nuclear weapons. Many non-nuclear weapon states view this as an inequity and seek to redress this through the NPT provisions and the Statute of the IAEA. The compliance monitoring provisions of the NPT are conducted on behalf of the treaty parties by the IAEA through separate bilateral agreements. At least two-thirds of the IAEA's resources are taken up by activities other than compliance monitoring. There are legitimate reasons for this, which flow from its primary purpose in the original mandate to promote the peaceful uses of nuclear energy through technical cooperation and assistance and advice on safety. The safeguards system focuses on materials accounting and does not have a state-to-state challenge inspection provision. The Director General initiates all types of inspection activity. This contrasts sharply with the CWC, in which the implementation organization, the Organisation for the Prohibition of Chemical Weapons (OPCW), is devoted solely to the treaty and is under the direct control of the member states. Nearly three-quarters of the personnel of the CWC organization, and two-thirds of its financial resources, are devoted to verification of compliance. While the routine inspection system under the CWC is the most costly element, and has some of the drawbacks of the IAEA system, there is a state-to-state challenge inspection provision, which is a valuable deterrent to would-be violators. These stronger compliance provisions could only be negotiated in the immediate post-cold war political and security environment.

### III. The economic incentives and a verification challenge

With regard to the economic incentives these lie not so much within the NPT as in the IAEA, which acts as an agent for the treaty members in operating the safeguards system. In the case of the CWC, negotiated some 20 years later, it was possible to incorporate the economic element more directly into the convention. Parties to the CWC are precluded from trading with non-members in certain widely traded chemicals listed in schedules that are an integral part of

the convention. There is a strong economic incentive for states to join the CWC in order not to suffer trading disadvantages by being on the outside of the treaty regime. Unlike the nuclear industry, the chemical industry is largely in the private sector and in dollar terms vastly greater and, particularly at the low technology end, involves production in a much greater number of countries.

While this factor is an incentive for joining the convention it also represents a verification challenge. The routine inspection system under the CWC can look at only a small fraction of this industry and unless these inspections are targeted to places of particular concern it does not represent a strong deterrent. The targeted parts of the verification system are the short-notice inspection provisions, which can be initiated by any member state. Also, these inspection provisions are an integral part of the convention and do not require a separate protocol with the OPCW.

The BTWC is a stark example of a treaty that sets a global norm banning a weapon as a legal arrangement without any verification provisions. After 1975, when the convention entered into force, one of the three depositaries, the Soviet Union, continued an illegal offensive biological weapon programme, even expanding it in the 1980s with the investment of substantial additional resources. The Soviet Union exploited developments in biotechnology to gain a technical military advantage that it could not achieve in other strategic military capabilities. The UK and the USA are engaged with Russia, under a trilateral agreement, in what has become a protracted confidence-building process to gain assurance that this programme has ended. This process involved intrusive visits to biological facilities in Russia and, as part of the bargain, reciprocal visits in the UK and the USA. While the trilateral process is stalled for the time being, it represents a method by which investigations can take place using national resources.

Concerns about non-compliance in Russia and elsewhere have led to efforts to negotiate a verification protocol for the BTWC, which has been under consideration by parties to the convention for the past six years. There are particular technical challenges in going beyond a CBM regime to enhance compliance with the BTWC. To stand a chance of being an effective deterrent to cheating, a verification regime would have to be even more demanding than that of the CWC, which is generally recognized to represent the limits of what was politically possible in the political and security environment of the early 1990s. For a determined violator it is possible to hide an offensive programme in a small clandestine facility or in an otherwise legitimate commercial or academic activity. A routine inspection system would stand little chance of being effective. A challenge inspection system would work only if it were conducted with a strong state-to-state element enabling the use of intelligence resources available from national sources.

#### IV. What kind of verification measures?

The use of intelligence from national sources, as the recent UNSCOM experience shows, is understandably a particularly sensitive issue in multilateral compliance monitoring activities. Nevertheless, it is an aspect that needs to be dealt with directly and does not apply only in the BTWC context. It is hard to see, in the difficult cases where states are determined to avoid their obligations, particularly in areas such as biotechnology that are relatively easy to hide, how multilateral inspection activities can be successful without this kind of assistance. This conference could discuss objectively the use of intelligence in multinational verification processes. In scientific and economic terms the biotechnology industry has experienced phenomenal growth in the past decade. The verification protocol under negotiation in Geneva is in danger of being overtaken by events. The industry has spread well beyond the traditional pharmaceutical industry into agriculture and the food industry and may even enter the information technology sector before long. Billions of dollars and substantial proprietary stakes are involved. A global verification system even with very intrusive rights and a very large inspection organization would face a daunting task.

It is a much easier task to point to the difficulties in the effective implementation of multinational treaties than to propose solutions. Beyond the important role of establishing international legal norms there is a limit to what the treaties and their organizations can do. The parties to a treaty are 'bound only by ropes of paper', as a distinguished ambassador to the Conference on Disarmament once said. Treaties depend on a confluence of interests between the state parties for their implementation and evolution. It is easier, but still often difficult, to achieve such a confluence at the bilateral or regional levels. The major advantage of a regional approach is that it can take place in the context of a security discussion that deals directly with the security concerns of the states involved. It can also help free the treaties from the political and security constraints of the past. This approach can draw on the existing treaties and establish regional compliance and verification systems that could have more intrusive rights and obligations than a global regime. In particular, regional approaches can more easily accommodate national inspectors. Regional arrangements can and should be supported by the appropriate treaty organization if one exists, as is the case with the NPT and the CWC. Perhaps, for example, in the case of the Middle East it is not too optimistic to look forward to a revival of the Arms Control and Regional Security Working Group. Technological developments will increasingly favour states playing a role with national surveillance means on a more equal basis than in the past at the regional level. In particular the enhanced capabilities of remotely piloted vehicles are likely to be more generally available within the next decade. They

will provide an overhead surveillance capability on a par (or perhaps better in terms of response time and in certain weather conditions) with that enjoyed by major powers with satellite capabilities.

Regional arrangements can be an integral part of either a regional or sub-regional security agreement or a peace settlement, and are not a new idea. Examples include the Multilateral Force Organization in the Sinai and, more recently, the arms control arrangements under the 1995 Dayton Agreement. The dismantling of WMD programmes and reductions and limits on the deployment of conventional weapons are likely to form part of security agreements for the Middle East and the Korean peninsula, in the event of the unification of the two Korean states. In these situations what would be needed is an oversight organization or commission which integrates all the disarmament and arms limitation activities. The single-issue organizations (such as the IAEA, the OPCW and other bodies that in the future may be operating under the BTWC and the CTBT) should be called upon to support an organization of this kind as appropriate. Such an organization could be set up as part of a regional agreement or by the UN Security Council.

In this regard there are a number of valuable lessons, both political and technical, which should not be lost sight of in the fog of current events. One of the many political lessons is that the task of disarming Iraq of all three types of WMD, and its missile programmes, was dogged by divided responsibilities between the IAEA and UNSCOM. The recent difficulties with Iraq should not obscure the remarkable achievements by UNSCOM and the IAEA in finding and dismantling major portions of Iraq's nuclear, biological and chemical weapons and missile programmes by non-military means—although from time to time being backed by the threat of the use of force. The technical lessons from the experience are many and some have already been taken on board, for example, the improved IAEA safeguards (the '93 + 2' agreement) have incorporated environmental monitoring procedures. One of the more challenging lessons for standing organizations to deal with is the wide range of up-to-date scientific and technical capabilities required of inspectors in order to uncover a clandestine programme. I can recall one of UNSCOM's more successful biological weapons inspections, which included a civil engineer, a veterinary surgeon, a chemical engineer, a medical doctor and an explosives expert. This spread of expertise within an inspection team was not uncommon. It would be too much for an international organization to be able to keep such a range of current expertise within its permanent staff. At least arrangements should be made to call on such people when needed. They would have to be designated and declared to the inspecting organization in advance to make such a system work.

## V. Conclusion

No treaty can escape the prison of the past entirely. Greater empowerment of and investment in treaty organizations will not necessarily improve the implementation of the treaty regimes and enhance the security interests of their members. There are dangers in expecting too much of the global treaties in trying to deal with the more difficult cases at the expense of their vital role in reinforcing global norms. To deal more directly with the interests of member states, and to overcome some of the anachronisms in them, support should be given to processes that deal with the total regional security environment. The existing treaty organizations can have an important role in this regard, provided they have sufficient flexibility to interoperate with the regional arrangements in a coordinated way, particularly if a range of different weapons is involved. An important issue that should not be ducked because of the recent difficulties over UNSCOM is the use of information from a variety of sources to support verification and monitoring activities. In analysing the arms control agenda for the future, however, the leading edge of arms elimination and reduction is the resolution of the major political differences in the various regions of the world. The arms are not necessarily the problem but rather the deadly symptom of the failure to resolve these differences.

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# 13. Transition from balance of power to a cooperative system

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*David Ivry*

## I. Introduction

In order to discuss the transition from one system of arms control to another, it is necessary to relate first to the cold war system of arms control under which we lived for about 40 years.

### **The cold war**

What we refer to today as a voluntary cooperative system of arms control did not exist during the cold war. Each superpower controlled the proliferation of weapons technology within the regions under its influence. Each superpower's political and strategic interests determined its proliferation and non-proliferation policy—the most significant of these interests being the struggle to increase the number of regions or states under its influence. Another was to deny the proliferation of weapons of mass destruction (WMD) to countries under its zone of influence.

In certain areas of the world the arms race was dictated by one of the superpowers when it would decide to bring a specific region into its sphere of influence. One clear example of this was the large-scale entrance of the Soviet Union into the Middle East in the 1950s. Until that time, the Middle East was the domain of Western and European arms supplies, as the UK, France and Italy were the primary suppliers of arms to the region. Then the Soviet Union entered the scene, offering new, cheap and effective equipment such as the MiG-15 aircraft and the T-34 tank.

The psychological barriers posed by the differences in culture and tradition between Arabs and Soviet Communists were overcome by the favourable terms of purchase and credit extended to the Middle Eastern countries. Many contended that this partnership could not last for long given the vast differences between Islam and the values of the communist regime. Yet, we see how powerful the Soviet offer was—powerful enough to influence even the political culture of the countries in this region.

The goal of the Soviet Union was to gain a new sphere of influence in this region—and it succeeded in meeting that goal. It did not prevent an arms race, but it did monitor and control the types of arms that were supplied to the region. It acted in a generally responsible manner in order to further its own global interests. The Soviet Union did not supply the most advanced technol-

ogy to the Middle East and thus prevented any advanced technology from being revealed to the enemy.

This pattern was followed all over the world. The latest equipment was only introduced into the theatre of operations where direct conflict between the superpowers—between NATO and the Warsaw Pact—was potentially to occur—in Europe. In all other regions an attempt was made to supply only older equipment, primarily to prevent it from being revealed to the adversary but also to prevent, as much as possible, local conflicts. This is the reason why defensive equipment was always easier to procure from a superpower than offensive weaponry.

Economic factors also played a large role in setting policy. Oil, as the world's primary energy source, succeeded in changing the rules of the game and led to competition between the arms suppliers. A prime example of this phenomenon was Iraq—which prior to the 1991 Persian Gulf War managed to secure weapons and technology from the Eastern and Western blocs.

Iraq also received assistance from the West in its conflict with Iran in the 1980s. The strategic decision was made that Iran posed a greater threat to the West than Iraq did.

Another field, a particularly sensitive one, gave a start to the process of regulating the flow of arms—the prevention of leaks in new and sensitive technological information. Each side closely guarded its assets while at the same time attempting to uncover its opponent's secrets. The Western side established a monitoring system called COCOM (the Coordinating Committee on multilateral export controls) which set forth categories and guidelines for technologies not to be exported. For example, restrictions were placed on the export of super-computers. This system of export controls was an indirect way of gaining an edge on the adversary and not any real attempt at disarmament.

In fact, there was no real arms control to speak of during this cold war period. Rather, we can speak of control of the arms race in various regions of the world by the two superpowers as dictated by their strategic interests.

In essence, there was never any intention on the part of either side to achieve any meaningful arms control. There was a very deep mistrust between the parties. The intention of each was to calm the enemy while at the same time improving its own strategic capabilities—be it with multi-warhead missiles or nuclear-armed submarines.

### **The post-cold war period**

Since the end of the cold war, developments in the field of arms control have gone in a completely different direction. There is a greater tendency towards voluntary cooperative arms control systems in which the benefit of all nations is put forward as the reason for participating. The reasoning here is quite logical.

1. The proliferation of WMD and surface-to-surface missiles (SSMs) is a real threat to all countries that simply cannot be ignored.
2. The decline of defence spending in democratic countries at the end of the cold war left these countries searching for ways to compensate for their reduced military capabilities.

Since the end of the bipolar conflict, most of the democratic regimes have reduced their defence spending. Recent democratic elections have focused on social and economic issues while defence issues are no longer high on the agenda.

The need to find a way to compensate for reduced military capabilities provided the push to develop new military thinking (the Revolution in Military Affairs)—to build small, smart armies and so on.

There is a consensus that the reformulation of military concepts is not enough in the light of growing threats. There is a need to develop ways of stopping these threats, particularly the spread of WMD and SSMs.

## II. Voluntary cooperative arms control

Today the primary tool for fighting this threat is the use of international conventions, treaties and suppliers' regimes to prevent proliferation. These are essentially voluntary tools that depend on the willingness of a country to join and then abide by the obligations of the conventions and regimes.

In most of the non-democratic countries there has been no change in the national agenda since the end of the cold war. Their defence budgets are set according to very different priorities than those in democratic countries. In some of the countries, the army constitutes the power that maintains the regime, given the lack of any real democratic elections. Social and economic issues are given lower priority than defence on the national agenda.

Some of these non-democratic countries sign international conventions with the intention of reaping the benefits of being parties. Such benefits might include access to civilian nuclear technology or dual-use (civilian and military) technologies relevant to weapons and delivery systems. This was clearly the case in Iran, Iraq and North Korea. An imbalance has been created between those democracies that are in the process of disarming themselves from WMD, and those non-democratic countries which violate the conventions they have signed and keep their WMD in their backyard. Of course there are those countries that have never signed a convention, and therefore are not breaking it, yet still have not started any process of disarmament.

This past year has not been a particularly good one for arms control agreements. The nuclear tests in India and Pakistan, as well as the missile tests in India, Iran, North Korea and Pakistan, all raise serious questions as to the effectiveness of arms control conventions, and that is without going into the nuclear and other capabilities discovered in Iraq after the Gulf War or those uncovered in North Korea.



The lack of balance, however, is not the central problem. We have witnessed the difficulty of dealing with a country that violates international treaties. It has been difficult to achieve any kind of consensus on how to deal with Iraq's violations. Democratic countries tend to shy away from complicated confrontations as long as there is no direct threat to them.

This was the situation that arose between the two world wars and allowed Nazi Germany to develop its offensive capabilities despite its obligations undertaken at the end of World War I not to do so. The European countries reacted too late and thus were forced to fight a five-year war at a terrible cost.

Uncovering the violations is an even more difficult aspect of the problem. In the 1930s intelligence could uncover developments and violations. Today, it is very difficult to uncover hidden technology used for WMD. The United Nations Special Commission on Iraq (UNSCOM) has spent over seven years in Iraq. They have had all the means available to monitor and uncover WMD—far more than any voluntary convention allows for (UNSCOM received its mandate from the UN Security Council). Yet, UNSCOM itself is convinced that it did not succeed in uncovering all the chemical and biological capabilities of Iraq.

The world faces a serious dilemma with regard to the possible response to interim situations, particularly with regard to limited conflicts in which the use of maximum force cannot be justified. That is to say, the nuclear umbrella cannot protect a country even though that country was promised such protection precisely because of the limit on the use of power in limited conflicts.

The logical conclusion is that at the end of the day international conventions unfortunately cannot prevent arms proliferation, especially proliferation of non-conventional weapons. Does this mean that we should stop our efforts to maintain these conventions? The answer is that there really is no better alternative. Yet we cannot fool ourselves as to their effectiveness. Thus we must strive for both the technological advances and the procedural improvements that can increase the effectiveness of these treaties.

Technological advances are aimed at improving compliance and verification. Procedural advances include the improvement of cooperation between intelligence and verification. Even then, those who want to violate a convention will do so. Concealment is simply that much easier in non-democratic countries than it is in open societies with governments subject to accountability. Regional cooperation on arms control can in some cases be an improving effort, when it is followed by the reduction of regional mistrust and by regional confidence-building measures.

### III. Surface-to-surface missiles

Another important subject for discussion is the Missile Technology Control Regime, which has had little success. However, this was not the case before 1990, when it was counted as a real success in South America and North

Africa. The arms race for SSMs received a real boost as a result of the Gulf War and is now in full swing. Many countries have acquired SSMs with a range of hundreds of kilometres. Some countries have even acquired the means for production of such missiles. This is not the place to discuss intelligence assessments of the capabilities of specific countries, but we do need to examine the phenomenon and its impact on regional and global stability.

The main argument posed here is that procurement of SSMs leads to the procurement of WMD.

Allow me to explain. We know that the use of SSMs does not require a common border between enemies. Therefore:

1. Intelligence is more valuable, yet harder to procure.
2. In order to carry out any response, one must cross over neighbouring countries' borders.
3. Ground forces, the decisive force in conventional warfare, can no longer play a role—the exception being special forces.

War conducted between countries through the use of conventional SSMs cannot be won decisively by either side. The only logical step is to arm the warheads with WMD and thereby achieve the decisiveness and victory that normally only comes with the introduction of ground forces. Chemical agents are the most accessible and suitable materials with which to arm the warheads initially. Later stages may include biological or even nuclear weapons, depending on the technological advancement of the country and the resources it devotes to the task.

Procurement of strategic SSMs drives forward the procurement of chemical warheads, thereby increasing both regional and global instability. The race for SSMs leads to the race for chemical and other WMD.

The same understanding that tells us that in limited conflicts there is a limit on the use of power also tells us that it is not necessarily the stronger side that dictates the rules of the game. There is an interim stage in which, even if the means to decisively stop the aggressor in a conflict exists, it may not be possible to use those means and exert that force.

There is a need to prepare ways to prevent hasty responses and decisions from being made while under the pressure of an attack.

#### IV. Proposals

We can do the following.

1. There is a need to prepare for passive self-defence at the national level.
2. There is a need to develop the ability for early warning and active defence, preferably at the regional level.

3. There is a need to develop the capability to respond to the launch of SSMS—for example, the ability to intercept missiles close to the point of origin so that they fall on the launch area territory. This last task is one that should be carried out at the international level—Boost Phase Interception.

Activities of this sort will provide the needed alternative to ground forces that is currently missing from the equation of conventional deterrence. The development of these capabilities will allow for the return of stability through strengthened deterrence.

During the Gulf War, many weaknesses were exposed. Even the most modern forces could not stop the launch of Iraqi missiles against Israel and Saudi Arabia. Here began the erosion of the existing deterrence which in turn led to the current race to procure SSMS capabilities, which has only furthered instability in the region.

## V. Conclusion

If we return to the subject of arms control in the light of what I have explained here, the conclusion is that neither voluntary cooperative conventions nor the most effective monitoring and verification programmes alone can offer effective arms control. We must ensure that the third and complementary element is included in the equation—deterrence, the same element that during the cold war motivated the superpowers to create balances in the conventional arms races in different parts of the world. This would convince aggressive nations that the power to retaliate and punish exists, and then maybe they will think twice before violating the conventions they have signed.

We must strive for technological and procedural improvements to increase the efficiency of international conventions and divert some attention and effort towards regional cooperation on arms control.

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# 14. Arms control in transition: building a new security order

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*Carlo Jean*

## I. Introduction

This paper addresses the following issues: (a) a new framework for arms control in the post-bipolar world and its possible contribution to overcoming the current phase of transition so as to build a new security order; (b) the consolidation of the results achieved by arms control during the cold war; (c) the new challenges for arms control owing to the fragmentation of the ‘Westphalian states’ and the security systems, and to the enlargement of the concept of security (and hence of arms control) from the ‘hard’ to the ‘soft’ dimensions (‘broad’ or ‘comprehensive’ security and arms control); and (d) the relationship between the local and subregional levels, as well as the regional and global ones, of both arms control and security.

The discussion is focused on Europe and its surrounding areas. The problems of other regions, such as South-East Asia, are completely different, not only because of their insufficient institutionalization but also—and mainly—because of the dominance of ‘interstate’ over ‘intra-state’ wars, the lesser relevance of the non-military dimensions and the greater importance of the confrontational as opposed to the cooperative approach to security.

## II. A new geopolitical framework for arms control

Arms control played a major role at the end of the cold war. It can be debated whether the end was the outcome of détente (or, better, of Soviet President Mikhail Gorbachev’s decision to fundamentally change the Soviet foreign, security and defence policies) or whether arms control itself produced détente. In my opinion, US President Ronald Reagan’s rearmament was the reason for the end of the cold war, but undoubtedly arms control consolidated it.

The geopolitical discontinuities resulting from the collapse of the Warsaw Pact and the Soviet Union had a great impact on the security system in Europe, which is still in transition, with the NATO enlargement process, the Partnership for Peace (PFP) programme, the new Revolution in Military Affairs (RMA), and the new relationship between NATO and Russia. This relationship is in the process of being transformed, with the 1997 NATO–Russia Founding Act on Mutual Relations, Cooperation and Security, but it is still unclear whether this is only a means to reconcile Russia with the new strategic political landscape—and for Russia an instrument to participate in

some way in the NATO decisions—or whether it is also the basis for a new cooperative security system ‘from Vancouver to Vladivostok’.

Arms control, to maintain its relevance if not to regain the central role it enjoyed from 1987 to 1992, must adapt itself to the new geopolitical situation. Apart from the RMA, which could make some basic previous concepts and models of arms control obsolete, arms control should also take into account the fragmentation of European security, the growing importance of internal conflicts, the centrality of qualitative as opposed to quantitative factors of military power and the practical impossibility of developing reliable models of stability. The qualitative (uncountable) factors of military power (nationalism, training, morale, paramilitary factors, and mobilization of light infantry with a remarkable offensive potential), as the experiences in Bosnia and Herzegovina show, play a crucial role in the assessment of military potential. It is increasingly evident that it is irrational to deal with arms control as if it were only of a techno-military or quantitative nature and undifferentiated in the various geopolitical subregions. A more sophisticated approach, and maybe a new logic, is required. A subregional approach, with a specific geopolitical identity, could link the new arms control to the political and strategic realities. However, the fragmentation of arms control in subregions is conceptually opposite to the central idea of the indivisibility of security. It could produce an ‘ad hoc’ political strategy, which could destabilize the very basis of regional and global security. Moreover, the subregional arms control approach requires the abandonment of the ethnocentric and mainly technological logic which was dominant in the elegant simplicities of the bipolar world and nuclear deterrence. From an aesthetic of simplicity, arms control has to convert to an aesthetic of complexity in order to maintain its contact with the political–strategic reality.

Moreover, the former logic of arms control was mainly static and reductionist. It should be supplemented by a dynamic logic that accepts the inevitable ambiguities related to the unpredictability of the evolution of relevant factors. The same applies to the crucial role of the flexibility of the intervention forces of the ‘status quo’ powers, which is essential to maintain stability in regions like the Balkans or the Mediterranean basin and which is substantially opposite to the parity paradigm of arms control during the cold war. Only flexibility permits effective risk-reduction and crisis-management mechanisms, which follow a logic similar to that of extended deterrence.

Arms control should no longer be required to have elaborate verification procedures since the qualitative factors that should be emphasized in the future are not verifiable by traditional means. Unilateral measures and political-strategy dialogues are likely to gain in importance. From a ‘hard’, capabilities-oriented approach (based essentially on ‘bean counting’), the new arms control has to take the ‘soft’ factors more into account, to build and reinforce political, strategic, economic and cultural cooperation, thereby reinforcing the span of practical arms control measures.

To sum up, arms control must shift from an approach that assesses the concepts of security and stability in terms of a balance of technical capabilities towards a new approach, centred on the balance of strategic–political capabilities. It has to move from a capability-oriented to a mission-oriented approach, taking into account all the strategic dimensions, including space, time and the links between military forces and the socio-political systems that produce them. Passing from a balance-of-forces approach to one based on the principles of cooperative security, arms control is no longer only a consequence but also a constructor of peace, strictly integrated with other military, cultural, economic and other instruments of security policy and stability.

While the Organization for Security and Co-operation in Europe (OSCE) concentrates on consolidation of the pan-European balance, and global nuclear stability continues to be managed bilaterally between Russia and the USA, NATO has met the challenge of cooperative security in Europe with its enlargement process, the Euro-Atlantic Partnership Council, the PFP programmes and the projection of stability on to neighbouring areas. The new strategic concept and the actual political behaviour of NATO, for instance in the Kosovo crisis, have created a challenge not only to the United Nations but also to the OSCE. The most critical issue in this new situation arises from the link between local and subregional security and arms control agreements and the larger pan-European security architecture. Only NATO, in effect, has the necessary power to ensure those links, because stability at the local and subregional levels requires the presence of external forces. These implicit or explicit guarantees are not imposed by the West. They are requested and legitimized by the general will of all the Central and East European countries to be integrated into the Euro-Atlantic community. This represents one of the most relevant aspects of the Stability Pact for South-Eastern Europe, which is based on the engagement and enlargement of both the European Union (EU) and NATO and on the synergies of both. In this sense, arms control should be an instrument for both ‘horizontal’ integration (in the subregion) and ‘vertical’ integration into Europe.

### III. Consolidation of arms control achievements during the cold war

The central political–strategic importance and media visibility of arms control disappeared after 1992 for several reasons: (a) the disappearance of the threat; (b) the new RMA, which makes many previous arms control quantitative paradigms irrelevant; and (c) the enlargement of NATO, in terms not only of its membership but also of its influence ‘from Vancouver to Vladivostok’, with the PFP and the implicit transformation of its very nature, incorporating collective security goals in addition to its basic common defence missions. The Kosovo intervention represents quite a watershed for the new roles of NATO.

The only sector in which an approach very similar to that of the cold war is still maintained is that of nuclear weapons, both to reach an existential minimum deterrence between Russia and the USA and to prevent the proliferation of weapons of mass destruction. The major problems in this field are related to the involvement of the other nuclear weapon states in the bilateral negotiations between Moscow and Washington and to the elaboration of more efficient devices of both non-proliferation (in the areas of verification and enforcement) and crisis prevention/management and deterrence/defence in the case of proliferation.

On the global agenda of security, there are also other issues of common interest: terrorism, international crime involving drugs, weapons and human trafficking, illegal immigration, ecological hazards, conflict prevention in the non-military sectors like state-, nation- and democracy-building, human and minority rights, economic development, and so on. Political leaders and institutions are trying to cope with the new risks to broad security, to reduce the probability of conflict, and to augment the incentives for and potential of cooperation between states required by growing interdependence and globalization.

The logic of cooperation and inclusion, overcoming that of confrontation and exclusion, leads us to consider arms control as an instrument to build cooperative security systems—in the directions elaborated by the Independent Commission on Disarmament and Security Issues (Palme Commission)<sup>1</sup> or by the Brookings Institution.<sup>2</sup> Cooperation could be based not only on the interests of all states in maintaining the status quo (especially from the economic, cultural and strategic points of view) but also on their material inability to challenge the Western superiority and to modify a status quo which, in any case, is acceptable to and often also beneficial for them. It is therefore possible to overcome the confrontational logic of the security dilemma.

As far as conventional armed forces are concerned, the reserves of consensus to extend regional agreements—the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty), the Vienna Document 1994 on Confidence- and Security-Building Measures (CSBMs), and so on—from a balance-of-power approach to a cooperative security one seem nearly exhausted. The efforts to complement the dominant quantitative approach with qualitative factors and to take more into account the force-multipliers or aspects such as sustainability and the space and time dimensions (warning times, etc.) have also been largely unsuccessful.

The limits of traditional arms control are to a great extent a result of its past successes. Hence, the new negotiations exhibit mainly a routine and bureaucratic character and are, strategically, of marginal importance. The real forum

<sup>1</sup> Independent Commission on Disarmament and Security Issues, *A World at Peace: Common Security in the Twenty-first Century* (Independent Commission on Disarmament and Security Issues: Stockholm, 1989).

<sup>2</sup> Nolan, J. E. (ed.), *Global Engagement: Cooperation and Security in the 21st Century* (Brookings Institution Press: Washington, DC, 1994).

of the most relevant discussions about the future architecture of Europe has been re-located from the OSCE to NATO (which enjoys the necessary military might to project stability) or to the Contact Group, similar to an informal ‘concert’ of European powers, and sometimes to the Group of Eight industrialized nations.

The essential elements of European stability were reached by 1995 through the huge reduction of heavy weapons under the CFE Treaty. Since then, the pan-European (OSCE-centred) security system has envisaged maintaining the status quo to continue mutual trust, confidence, transparency and political dialogue. The importance of pan-European arms control is mainly, indirectly, to cope with the Russian preoccupations with NATO enlargement and interventions.

The likelihood of a new continental war has decreased dramatically. With the lack of a threat, it is infeasible to proceed with bold arms control initiatives and further reductions. Reductions and force restructuring are driven by finance ministers and by the RMA. More realistic, and therefore relevant, are the subregional, local and internal conflicts. As they cannot be dealt with solely at the subregional level, they require the intervention of external actors that possess the power to effectively intervene militarily and economically. Good cooperation between the EU and NATO is hence crucial, maybe under the roof (and ‘auspices’) of the normative experiences of the OSCE, which is, for instance in the Balkans, in a position to involve both Russia and Turkey.

The OSCE, although enlarging its interests to broad or comprehensive security and to conflict prevention (state building, democratization, human rights, freedom of the media, etc.), has no adequate power to build a link between the subregional and the continental systems. It can only conduct negotiations on pan-European agreements. For instance, the Stability Pact for South-Eastern Europe is ‘under the auspices’ of the OSCE but, in effect, under the control of NATO and the EU, with some ‘turbulence’ owing to the sometimes excessive activism of other institutions, like the UN, the Council of Europe, and so on, whose power to disturb is growing with their lack of effectiveness.

#### IV. From ‘hard’ to ‘broad’ and from ‘confrontational’ to ‘cooperative’ approaches to security

No existential threat has existed in Europe on a continental scale since the end of the cold war. The consolidation of the achievements of arms control negotiations reinforces this status quo situation, which is also based on the absolute superiority—not only military, but economic, cultural, technological, ideological, and so on—of the West. The instruments of this dominance are especially those of ‘soft’ power, which is legitimized and accepted by all the European peoples who, in one way or another, want to join the Euro-Atlantic institutions as respectable and respected members. Soft dominance is very different from



imperial hegemony. It creates, as Fernand Braudel said about the Mediterranean basin, 'a system of world-economy' based on interdependency, not on a territorial empire. Hence, it does not produce anti-hegemonic coalitions, which have characterized European history since the 16th century, is less costly, and is compatible with the values, principles and demographic trends of the West.

The conflicts are mainly internal to the states which are eroded internally by local, tribal and ethnic-nationalistic forces and externally by transnational forces (international crime, multinational corporations, religious sects, financial groups, etc.) or by regional and international institutions. The latter have absorbed a part of the traditional Westphalian state sovereignty (allowing, on the other hand, the state to restore it, facing the challenges of globalization, for instance with the European Monetary Union).

The forces of integration are opposed to those of fragmentation. Finding a common interest in coping with the latter creates new incentives to cooperate, thereby overcoming the security dilemma. The vested interests of fragmentation (from populist and nationalist leaders to the links between criminality and politics) have to be neutralized by a broad integration policy with 'partnership-building measures', for instance, confidence-building measures (CBMs) in the search for identity and in the cultural and religious fields, democratization, human rights, economic development, and so on, tailored to the peculiarities of the various subregional situations. On the other hand, it is impractical to attempt to develop new common arms control measures on the European scale. The reality is too heterogeneous and asymmetric, for instance in the Balkans or in the Mediterranean basin, between the West on the one side and the South and the East on the other.

Internal and external security are increasingly intertwined and interdependent. It is sufficient to look at the situations of Bosnia and Herzegovina and the Former Yugoslav Republic of Macedonia (FYROM) to understand that the problems of stability and security, and hence of arms control, must be dealt with at the local and subregional level. This is also because of the existence of dangerous links between organized crime and politics, sources of aggressive external and nationalist (in effect tribal-nationalist) internal behaviour.

Specifically, in the field of hard security, a number of elements that were irrelevant in a broader pan-European context—where the goal of arms control was to reduce the possibility of a surprise, large-scale attack and the instrument for reaching strategic stability was mainly parity in heavy weapons—are now particularly relevant. These include: (a) mobility (also taking into account the offensive power of light infantry in rough and woody terrain); (b) democratic control of armed forces; (c) risk-reduction provisions, the effectiveness of which depends on the possibility of a 'robust' external arbitration; (d) police and paramilitary forces; (e) arms production facilities; (f) control of ammunition stocks (e.g., a large distance between weapons and ammunition) and of the import and export of military equipment; (g) regula-

tions on foreign military deployments, permanent or temporary, and on foreign defence assistance; (h) ceilings on military spending as a proportion of gross national product and on the proportion of soldiers in the total population; (i) aerial observation and inspections at the subregional level (the Hungarian–Romanian model) without all the sophistications and costs associated with the Open Skies regime; and (j) defensive military doctrine, posture and training (some concepts of non-offensive defence might be usefully implemented, in association with external guarantees).

Furthermore, in order to complement and integrate the confrontational aspects of arms control, based on a balance-of-forces approach, a series of cooperative activities are now under consideration, not only in the framework of the PFP programmes but also, for instance, in the 1996 Agreement on Confidence- and Security-Building Measures in Bosnia and Herzegovina (negotiated under Article II of Annex 1-B of the 1995 Dayton Agreement).<sup>3</sup> These activities can be of a different nature: (a) the political dialogue and the constitution of inter-parliamentary committees and working groups, also to promote the democratic control of armed forces and further transparency and understanding; (b) the link between arms control and stability-building measures in non-military fields of security (democratization, human rights, economic development, free market, history books, etc.); (c) the participation of armed forces in international cooperative activities, in fields like peace support and humanitarian and disaster relief operations; and (d) the establishment of military liaison missions and a network of institutes of international and security studies (like the Euro–Mediterranean Study Commission, EuroMeSCo), which are important measures to increase transparency and mutual understanding.

All these initiatives are self-reinforcing and are also instrumental, in an open process, to the deepening and enlarging of cooperation.

## V. Subregional versus regional arms control

The links between the subregional and regional levels are crucial for the coherence, cohesion and indivisibility of security, and hence of arms control. The security systems and the arms control concepts and strategies should realistically take into account the limits of the effectiveness of conflict prevention. These limits are also a result of the growing inability of the ‘status quo’ states to employ military force in a timely and decisive fashion in order to prevent or resolve conflicts (‘post-heroic’ or ‘zero-dead’ warfare; the erosion of the power of representative democracies to intervene militarily; and, when they intervene, the inability to reach a complete military victory and a consequent definite political peace).

<sup>3</sup> The 1995 Dayton Peace Agreement is reproduced in *SIPRI Yearbook 1996: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1996), pp. 232–50.

The fragmentation of security, and the difficulties in coping with it, have many impacts on arms control theory and praxis: (a) the above-mentioned importance of the local and subregional dimensions as well as the need not to jeopardize the indivisibility of security; (b) the need to take political, social, economic and cultural factors into account; and (c) the need for a new concept of stability that takes into account the impossibility of elaborating new reliable models.

At the subregional level, for example in the Balkans, the concept of stability cannot be based only on a balance of forces, especially if it refers only to standing units and heavy weapons. On the contrary, it must incorporate political and strategic considerations. In other words, from a capabilities-oriented arms control (expressed mainly in the reductionist terms of 'bean counting'), it is necessary to follow more sophisticated approaches, essentially mission-oriented, in not only techno-military but also political terms. They have to take into account the militarization of societies (and their huge mobilization potential, typical of ethnic conflicts) and the growing military potential of civil economies (not only dual-use technologies, but also direct military employment of civil systems and equipment). They also have to consider the political, cultural, demographic and geo-strategic asymmetries between potential enemies.

As said above, subregional stability is generally not self-sustaining. It can only exist with an external guarantee and incentives to cooperate. These must be imposed employing the conditionality of economic assistance or the perspective of integration. In other words, we must move towards a politicization and 'strategization' of arms control, in which the management of agreements is more important than negotiations and the content of agreements.

An example of this is Annex 1-B of the Dayton Agreement, which considers the local level (Article II—CSBMs in Bosnia and Herzegovina), the subregional level (Article IV—subregional arms control involving Bosnia and Herzegovina, Croatia and the Federal Republic of Yugoslavia) and the regional level (Article V—regional arms control, involving the former Yugoslavia and neighbouring countries).<sup>4</sup> This is the intermediate phase towards pan-European systems (the Vienna Document 1994<sup>5</sup> and the CFE Treaty). Annex 1-B of the Dayton Agreement is vital and effective because it is linked to Annex 1-A, which regulates the stabilizing presence of NATO (in the Implementation Force, IFOR, now the Stabilization Force, SFOR) in Bosnia and Herzegovina.<sup>6</sup> The existence of this NATO security guarantee allows the employment of arms control as a means to achieve results that were not reached during the conflict and to transform the truce into a more sustainable and permanent peace. One instrument is the implementation of the programme of military contacts and cooperation of the Vienna Document 1994,

<sup>4</sup> Independent Commission on Disarmament and Security Issues (note 1).

<sup>5</sup> The Vienna Document 1994 is reproduced in *SIPRI Yearbook 1995: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1995), pp. 799–820.

<sup>6</sup> Independent Commission on Disarmament and Security Issues (note 1).

which should facilitate the building of a more cooperative security system in Bosnia and Herzegovina and hence reduce the huge, expensive NATO military presence so that it can be prolonged for as long a time as is necessary. The main problems arise from the lack of coordination between the different civil and military aspects of the stabilization process; that is, they arise from the management of the agreements, not from the Dayton Agreement itself.

The impact of the new Stability Pact for South-Eastern Europe could permit an approach based on clearer and more effective cooperative concepts, with a synergy between the internal and interstate levels and between the political, socio-economic and military aspects. It should capitalize on the common national interest of all South-East European countries in integration into the Euro-Atlantic community. Moreover, the positive 'fallout' of the NATO operation in Kosovo has reinforced the political will for cooperation both within Bosnia and Herzegovina and between the South-East European countries.

In more general terms, the subregional approach to arms control exhibits the following advantages.

1. The main advantage consists in linking arms control to the real problems of conflict prevention and crisis management, which—being subregional—should also be treated at the subregional level.

2. The creation of incentives to cooperate, by linking the political and economic assistance with the military factors of security, is a second advantage.

3. Subregional agreements are effective because they can provide for more stringent measures, impossible to agree at the global or pan-European level (i.e., in the risk-reduction field).

4. A subregional agreement can be supported by an external guarantee at the regional level.

The limitations and difficulties of the subregional as opposed to the regional approach may be the following.

1. It still seems to be impossible to develop credible models of stability limited to a subregion, especially when the soft and dynamic aspects of security dominate over the hard and static ones.

2. Subregional approaches may create interstate tensions, because participation in the subregion could be considered a hindrance to vertical integration (e.g., the Stability Pact for Slovenia and Croatia).

3. There is a lack of sufficient resources and expertise at the subregional level.

4. Most important, subregional approaches could produce confusion or a watering down of the cohesion of the European-wide political, economic and security institutions.

Nevertheless, all the above-mentioned difficulties could be neutralized or decreased.

With respect to the first type of difficulty, with the above-mentioned provision of external stability guarantees, from military to judicial and police guarantees, the existence of an effective international court for war crimes could represent an important deterrent factor, limiting some of the most brutal aspects of civil wars and ethnic cleansing. Moreover, the complexity of comprehensive security could be dealt with by flexible management of all aspects of the agreements and with the establishment of a coordinator with sufficient powers, also to avoid competition between the international institutions that overlap in the same area.

The second difficulty—the possibility of provoking interstate tensions—requires the provision of a clear conditionality between the will to cooperate and integration, and between socio-politico-military stabilization and economic assistance. This approach will undoubtedly introduce elements of ambiguity and unpredictability, and therefore of instability, but it could also promote strong incentives to cooperate inside the subregion, as in the Hungarian–Romanian case.

The third and fourth difficulties—the lack of resources and the danger of further fragmentation—could be reduced with the establishment of clear principles of subsidiarity, complementarity, cooperation and coordination between the regional and the subregional levels.

## VI. Conclusion

To be relevant, arms control has to adapt its basic logic and approaches to the post-bipolar world. First, there must be a new definition of stability, more ‘comprehensive’ and not only ‘hard’. It has to be linked more to the concept of cooperative security than to that of balance of forces. Second, arms control has to take into account the trend towards the fragmentation of conflicts at the internal, local and subregional levels, without jeopardizing the broader security systems which emerged at the end of the cold war. Third, arms control should constitute a pivotal aspect of the strategies of conflict prevention, crisis management and post-conflict reconstruction. It has to maintain the *acquis* of the arms control ‘golden age’ (1987–92). To this end, it must cope both with the preoccupations of Russia with NATO enlargement and with the needs of NATO to maintain the necessary flexibility to project stability in the different conflictual subregions on the periphery of Europe. Fourth, arms control has to take into account, within a coherent framework and exploiting all the possible synergies between the military and non-military aspects of security, the dynamic more than the static components of the correlation of forces. Therefore, it must attenuate the rigid conditionality of any agreement to its stringent verifiability.

For this reason the essential contribution of arms control to the new European order is based on the implementation, more than on the negotiation, of arms control agreements, taking into consideration that cooperative security

has to be continuously adapted to the contingent and unpredictable evolutions of the situation. Robust risk-reduction provisions (arbitration, security guarantees, etc.) will constitute pivotal aspects of any effective new subregional arms control agreement. On the other hand, cooperation has to materialize in 'partnership- and membership-building measures', which should constitute an integral part of any future arms control agreements. This will enlarge the span of cooperation and the possibility of further agreed or voluntary measures, from transparency to force reduction. It will be particularly important in post-war reconstruction, when a war has ended without a clear-cut victory. Arms control should support the transformation of temporary truces into permanent peace. It is a logic of arms control which is very different from that followed during the cold war, in which arms control was a product of peace, more than peace a product of arms control. In other words, arms control must often become the continuation of military intervention with other means, to transform an unstable truce into a stable peace.

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# 15. Structural and cultural challenges to arms control in intra-state and post-conflict environments

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*Keith Krause*

## I. Introduction

The topic for this panel of the SIPRI Nobel Symposium deals with two distinct but related issues: the prospects for arms control after post-conflict peace settlements, and the challenges posed to the development of arms control and security-building mechanisms by sub-state or non-state actors.<sup>1</sup> In both cases the record is mixed, as the international community has attempted to grapple with issues that go beyond the original context of the ‘arms control paradigm’ that developed over the past 40 years through various negotiations, treaties, regimes and informal arrangements.

The attempt to extend arms control and disarmament to new arenas should come as no surprise. It is by now a truism that the international security environment has changed dramatically since the end of the cold war. Commonly listed changes include the shift from an overriding concern with interstate conflict to a concern with internal and regional conflicts; the rise of ‘new’ issues such as anti-personnel landmines, small arms and light weapons, child soldiers and information warfare; the increased role of the international community in ‘managing’ (or mismanaging, in many cases) non-strategic conflicts, especially in so-called ‘collapsed states’; and the fairly dramatic declines in global levels of military spending, arms production and the number of soldiers in uniform.

Thus it seems only natural to adapt and use the same mechanisms that served to build security and reduce distrust in the cold war to the new conflicts and insecurities now faced by the international community. Examples of this would include the cooperative security dialogue in the Asia–Pacific region, including confidence- and security-building measures (CSBMs), the attempt to catalyse an arms control process in the Middle East, and the various post-conflict disarmament provisions included in the 1995 Dayton Agreement and other UN or internationally supervised post-conflict peace settlements.<sup>2</sup>

<sup>1</sup> Parts of this paper draw upon the author’s previous work with Andrew Latham (cited in footnotes below) and on Krause, K. (ed.), *Culture and Security: Multilateralism, Arms Control and Security Building* (Frank Cass: London, 1999). The author wishes to thank Kai Kenkel for providing editorial assistance for the paper.

<sup>2</sup> On the Asia–Pacific see Acharya, A., ‘A concert of Asia?’, *Survival*, vol. 41, no. 3 (autumn 1999), pp. 84–101; and Buzan, B. and Segal, G., ‘Rethinking Asian security’, *Survival*, vol. 36, no. 2 (summer 1994), pp. 3–21. On the Middle East see Jones, P., ‘Arms control in the Middle East: some reflections on

Yet there are reasons for scepticism about the applicability and relevance of the 'arms control paradigm' to these new contexts. Although most analysts and many policy makers have been quick to recognize the changing nature of international conflict and security challenges, they have been less quick to grasp the implications of these changes for arms control, disarmament and security-building policies. In many cases, the taken-for-granted assumptions on which policies have been based have proved to be wrong, with the result that well-intentioned arms control proposals have often failed to take root. Arguably, the main reason for this has been a failure to recognize that, in order for arms control policies to deal successfully with sub-state actors and post-conflict situations, they must be 'embedded' within, or linked to, a broader range of social, political, cultural and economic policies than was the case in their original formulation. We do not need more finely tuned or better arms control policies, but more and better thought-out overarching security-building efforts. I will make this argument in four steps: (a) a brief overview of the central premises of the arms control paradigm that has shaped Western policy for the past few decades; (b) a presentation of the structural problems encountered in applying this paradigm in the new international security environment; (c) a discussion of some cross-cultural issues that pose particular challenges to the development of arms control policies in many post-conflict environments; and (d) some concluding suggestions for overcoming structural and cross-cultural challenges to arms control in intra-state and post-conflict situations.

Before beginning, however, let me issue a caveat. This paper is too brief to support some of its claims with detailed evidence, especially concerning the underpinnings of the Western arms control paradigm.<sup>3</sup> Like all overviews, it also generalizes at the expense of capturing the subtlety and complexity of many contemporary conflicts. There is not one challenge posed by intra-state and communal conflicts, but a cluster of challenges that vary widely by region, conflict and context. Nevertheless, the challenges are sufficiently different from those we faced during the cold war to require a serious rethinking of the heritage of (and limitations of) the arms control paradigm.

ACRS', *Security Dialogue*, vol. 28, no. 1 (Mar. 1997); Levite, A. and Landau, E., 'Confidence and security-building measures in the Middle East', *Journal of Strategic Studies*, vol. 20, no. 1 (Mar. 1997); Evron, Y., 'Confidence- and security-building measures in the Arab-Israeli context', *Contemporary Security Policy*, vol. 16, no. 1 (Apr. 1995), pp. 152-72; and Karsh, E. and Sayigh, Y., 'A cooperative approach to Arab-Israeli security', *Survival*, vol. 36, no. 1 (spring 1994), pp. 114-25. On the UN efforts see the case studies of the UNIDIR Disarmament and Conflict Resolution Project directed by Virginia Gamba, Sep. 1994-Mar. 1996 (a complete list of publications produced for this project is available at URL <<http://www.unog.ch/unidir/E-RAPP.HTM>>).

<sup>3</sup> For a longer discussion, see Krause, K. and Latham, A., 'Constructing non-proliferation and arms control: the norms of Western practice', ed. Krause (note 1), pp. 23-54; and Adler, E., 'The emergence of cooperation: national epistemic communities and the international evolution of the idea of nuclear arms control', *International Organization*, vol. 46, no. 1 (winter 1992), pp. 101-46.



## II. The Western ‘arms control paradigm’

Western policies on issues of non-proliferation, arms control and disarmament have been shaped by several enduring and widely shared beliefs, assumptions and symbols that emerged from attempts to cope with the risks of the nuclear era. The idea of ‘arms control’ itself was born out of the failure of interwar disarmament efforts and the need to develop practical policies to deal with the dilemmas of nuclear deterrence. It focused on the *regulation* and *stabilization* of conflicts, and in particular on reducing the risk of war.<sup>4</sup> By the mid-1970s, East–West arms control had crystallized around a coherent set of practices or beliefs: (a) a belief in the necessity of nuclear deterrence and acknowledgement of the non-utility of major war; (b) a commitment to an ongoing step-by-step negotiating process that put a premium on rational, technocratic and managerial negotiating strategies; (c) an emphasis on formal negotiated arms control agreements that incorporated such ideas as ‘balance’ or ‘parity’; (d) an acceptance of the need for transparency and robust verification or compliance monitoring as stabilizing measures; and (e) a willingness to engage in confidence- and security-building processes that might transform threat perceptions and even political relations.<sup>5</sup>

Virtually every treaty and agreement of the 1970s and 1980s embodied some version of these five beliefs or practices and, whether or not the entire edifice of arms control contributed to ending the cold war, most of us would agree that it did at least provide a measure of stability in a relationship that was fraught with danger. As Strobe Talbott noted, arms control ‘talks went on and on, producing, if they went well, agreements along the way, but even if they went badly, they provided a forum in which Soviet and American officials sat across from each other and discussed military matters that used to be the stuff that spies were paid and shot for. The process served as a kind of deep-water anchor in Soviet–American relations’.<sup>6</sup>

I will return to the implications of these five beliefs for contemporary international security challenges; for now I want to highlight two issues.

First, the various arms control agreements that embodied these five beliefs rested in turn on a series of assumptions about the nature of the confrontation between East and West and the character of the opposing political systems. Civilian control of the military was assumed to be complete on both sides, in the sense that political authorities on both sides were the appropriate interlocutors and ultimate decision makers. Governments were assumed to enjoy at least some legitimacy in the eyes of their people, not to pose a direct physical

<sup>4</sup> One of the classic discussions of arms control described it as having 3 goals: (a) reducing the risk of war, (b) reducing its destructiveness should war break out, and (c) redirecting the resources devoted to armaments to other ends. Schelling, T. C. and Halperin, M. H., *Strategy and Arms Control* (Twentieth Century Fund: New York, 1961), p. 2. See also Bull, H., *The Control of the Arms Race* (Weidenfeld & Nicolson: London, 1961); *Daedalus*, Special issue on arms control, vol. 89, no. 4 (fall 1960); and Brennan, D. *et al.*, *Arms Control, Disarmament and National Security* (Braziller: New York, 1961).

<sup>5</sup> For a discussion of these, see Krause and Latham (note 3).

<sup>6</sup> Talbott, S., *Endgame: The Inside Story of SALT II* (Harper and Row: New York, 1980), pp. 19–20.

threat to their citizens, and to accommodate (even if only to a limited extent) competing bureaucratic interests and views. Destruction of the adversary, or its state and system, was also considered 'out of bounds' (with rare, and noteworthy, exceptions) since the risk of nuclear war was too great.

Second, this 'arms control paradigm' emerged only very slowly, based upon the fundamental realization that the East–West security dilemma needed to be addressed cooperatively. It generated a large body of negotiation, analysis and debate that created a community of experts who developed the essential concepts (such as arms control, deterrence, mutual assured destruction, parity, confidence building, transparency and verification) around which substantive agreements were constructed.<sup>7</sup> A great deal of learning and adaptation took place for all parties engaged in the negotiations and various dialogues, and this learning was not confined to the narrow diplomatic circle of negotiators and policy makers, but reached deep into the broader domestic political context and involved a wide range of relevant actors (bureaucracies, parliaments and interest groups). Most contemporary attempts to catalyse arms control in different contexts (Bosnia, the Middle East, etc.) have, however, tended to leap to the end-products of this process (architectures, security building and broad or formal agreements), without paying attention to the importance (or laborious and time-consuming nature) of the *process* itself.

### III. Structural constraints on exporting arms control practices to post-conflict and sub-state contexts

Perhaps the most straightforward way to illustrate the difficulties in developing arms control for the new security context is simply to list the ways in which the core assumptions underpinning the arms control paradigm do not hold in post-conflict and sub-state situations. Before doing this, however, it should be noted that at least some analysts argue that there are few, if any, conceptual problems posed in translating the arms control and security-building paradigm to sub-state conflicts. Barry Posen, for example, argues that the security dilemma faced by ethnic groups in conflict does not differ significantly from that between states and that similar steps must be taken to overcome it.<sup>8</sup> Communal or intra-state tensions often stem from uncertainties regarding the offence–defence balance between ethnic groups and the inability to distinguish between preparations (including military ones) for the legitimate defence of group members or interests and preparations for 'offensive' action (such as an independence struggle). These are exacerbated in situations where

<sup>7</sup> Adler (note 3).

<sup>8</sup> Posen, B., 'The security dilemma and ethnic conflict', *Survival*, vol. 35, no.1 (1993), pp. 27–47. Of course, there may still be profound practical difficulties in developing arms control mechanisms, but the 'recipe' to follow is similar. For other contributions in this vein, see Kautmann, C., 'Possible and impossible solutions to ethnic civil wars', *International Security*, vol. 20, no. 4 (spring 1996), pp. 136–75; Mearsheimer, J., 'Shrink Bosnia to save it', *New York Times*, 31 Mar. 1993; and Mearsheimer J. and van Evera, S., 'When peace means war', *New Republic*, 18 Dec. 1995.

formal mechanisms for conflict resolution or the protection of individual and group rights are weak or non-existent. For these analysts, the prescription is usually some form of communal separation (which ensures that potential ‘fifth columns’ cannot pose a credible threat), followed by the establishment of stable non-offensive military balances between states, regulated by formal arms control agreements (or military alliances).

Leaving aside the questionable morality, desirability or practicality of such projects, I want to draw attention to the way in which they systematically ignore how different the arms control and security-building context is in most contemporary conflicts. In this section, I will concentrate on four ‘structural’ constraints posed by post-conflict situations and sub-state actors; in the next section I will take up some more ‘socio-cultural’ constraints.

### **‘Winner takes all’ perceptions and the legacy of conflict**

At its most basic, arms control requires that conflicting parties accept the right of the other party to exist and to share in the division of political, economic and social ‘goods’.<sup>9</sup> In many contemporary conflicts, however, this is *the* issue to be resolved, since at least one party often has a legitimate fear that its survival (as a society or social group) or its access to power and resources (as a leadership elite) is at stake. The perceptions of the various actors in a conflict are often shaped by long-standing and directly violent confrontations in which the identity and contours of the political community are precisely what is at stake. Guarantees of power sharing and access to ‘goods’ (money, educational opportunities, government jobs and contracts, and import or export monopolies), especially for minorities, are seldom respected, and in some cases the spoils are so small as to make a division of them unfeasible.<sup>10</sup> As a result, the costs of engaging in post-conflict arms control or disarmament processes that might restrict the freedom of action of the leadership elite are often seen as too great, potentially involving its complete subordination to the ‘winner’ in a conflict. Under such circumstances, third-party intervention and guarantees of protection have seldom proved sufficient to overcome this fear, whether they are offered to East Timorese, Kosovar Albanians, Rwandan or Burundian Tutsis, different parties in the Angolan or Sierra Leonean conflicts, and so on.

### **Inability to establish a stable deterrent**

It is difficult to overemphasize the tight linkage between arms control and stable deterrence. Successful arms control requires a belief in the non-utility of

<sup>9</sup> ‘Goods’ can be anything from access to political power, prestige and legitimacy, to more concrete things (money, jobs, patronage networks, etc.). On the interstate level, shared ‘goods’ would include recognition of spheres of influence, great-power status, client states, etc.

<sup>10</sup> I am thinking in particular about predatory elites that control the (however limited) resources of their states and distribute them to various ‘clients’ who in turn support them in power.

the resort to war, either because its costs are too high or because its chances of success are too low. In many contemporary conflicts, however, the costs of resorting to violence are relatively low: the worst one can suffer is the *status quo ante*, with little or no loss in political power (perhaps even a consolidation of it) for ruling elites. Of course, it is true that wars end when the costs of continuing them become too great for one side (or both sides), but that does not necessarily mean that the costs of restricting one's future potential to go to war are also great. In fact, in many protracted or enduring conflicts (whether inter- or intra-state), the end of one war is merely a prelude to preparations for the next confrontation. In such circumstances, the conflict is not stable, and arms control would be seen as pointless or harmful by at least one party.

### **Inapplicability of ideas of balance or parity**

Parity or balance, often at equal numbers, has also been a central element of almost every formal negotiated arms control agreement.<sup>11</sup> Yet in most contemporary conflicts, ranging from the Middle East, to the Balkans, to South-East Asia or Africa, there is no balance to be struck. Not only do conflicting parties seldom exist in roughly equal balance, but in many cases there is an implied understanding of a hierarchical or subordinate relationship between them that would make an explicit acknowledgement of 'parity' unacceptable. This is especially a problem in minority communal conflicts (such as East Timor), where a bid for equal rights or recognition (often, but not always, including sovereign rights) is seen as undermining the stability or legitimacy of the broader political community. Advanced industrial states such as Belgium and Canada have encountered grave difficulties in dealing with this question, so it is no surprise that in less resilient political systems the resort to arms should be seen as a legitimate option. The problem also exists in a slightly different form at the interstate level, in regions such as the Middle East or South-East Asia, where disparities in size and military power between the parties, and different perceptions of appropriate regional roles and status, make it difficult to determine the kinds of arms control that could be put in place.

### **Low political legitimacy makes confidence and security building impossible**

At least some level of political legitimacy is required for conflicting parties to engage in confidence- and security-building processes that might transform threat perceptions and political relations. This is so for the simple reason that confidence building and transparency can often lead to a flow of information

<sup>11</sup> To such an extent that when the SALT I Agreement did not actually contain numbers (which would have revealed a lack of numerical equivalence between the USA and the USSR) the US Senate insisted that future agreements contain such equality.

and ideas (within governments, and between governments and their citizens) that can undermine the existing order. As a result, there are at least three particular difficulties that hinder the development of confidence- and security-building processes and measures in many post-conflict or sub-state contexts. The first is that in many states the military is often only weakly (or not at all) subordinated to civilian authorities and has a disproportionate claim on national resources that is not subject to oversight, scrutiny or criticism. Any CSBMs that shed light on military activities are thus likely to be resisted, as is, for example, the case in the Middle East. The second is that many regimes often pose grave threats to the human or societal security of their citizens (repression, political violence and predation), threats that are only mitigated by slow processes of political change, not by formal mechanisms such as arms control (this is frequently the case in sub-Saharan Africa). The third is that powerful economic interests are often implicated in the 'war economy' of many states and societies. These economic interests often benefit from perpetuating the conflict (through sanction busting, control of the black market, profiteering, control of valuable resources, etc.), are connected to the ruling elites (e.g., in Angola, Iraq and Serbia), and have little or no interest in participating in arms control and security-building processes that might reduce their power and wealth.

These four 'structural' problems directly challenge the very foundations of the arms control paradigm. The problem is not simply that the actors in intra-state conflicts are not states, or that they fail to behave rationally, or that they have too little exposure to arms control 'doctrines'. In fact, these actors are often perfectly rational but are faced with a range of incentives and threats that are unlike those of the world of arms control planners. Hence attempts to apply the recipes of arms control without taking account of these different interests and incentives, or without adequate groundwork and long preparation, are likely to fail quickly.

#### IV. Cross-cultural dimensions of new arms control challenges

In addition to these 'structural' constraints, one can also identify a set of 'cross-cultural' challenges to the translation of the arms control paradigm into new security contexts. Of course, the deployment of 'cultural' explanations for security policies is fraught with the dangers of oversimplification, reductionism and shoddy thinking. 'Culture' can be (and has been) used to erect barriers against criticism or to fend off unwanted interference in regional affairs: witness the 'Asian values' debate of recent years.<sup>12</sup> Yet there is also a

<sup>12</sup> For an overview of the debate on the Asian way, see Dupont, A., 'Is there an Asian way?', *Survival*, vol. 38, no. 2 (summer 1996), pp. 13–33; and Acharya, A., 'Culture, security, multilateralism: the "ASEAN way" and regional order', ed. Krause (note 1), pp. 55–84.

strong consensus that cultural issues matter in some way in strategic and security affairs and, by extension, they should also matter in arms control and security-building policies.<sup>13</sup> While I cannot discuss here all the intricacies of the cultural dimension of arms control and security building, I can at least highlight four ways in which cultural differences can present serious challenges to arms control in post-conflict contexts or in dealing with intra-state conflicts and sub-state actors.<sup>14</sup>

### **Orientations towards regional and multilateral relations**

Mental 'maps' that demarcate the boundaries of regions and define relations among members of a given region can affect orientations towards non-proliferation, arms control and disarmament. Thus, for example, Indonesian resistance to a leadership role for Australia in the recently established multilateral force in East Timor stemmed in part from a perception that Australia was not part of the regional security community embodied in the Association of South-East Asian Nations.<sup>15</sup> Similarly, in the African context the leadership role that Nigeria or South Africa wishes to assert often clashes with neighbouring states' perceptions that these states are making a bid for regional hegemony rather than playing the role of an 'honest broker' in conflicts.

On a broader level, the Western tendency to label states or regimes as 'rogues' or 'pariahs' complicates the pursuit of arms control between conflicting parties. Why should one make (or broker) a deal with a 'rogue', or with a regime that is responsible for various atrocities, and why should such an 'outcast' participate in multilateral security-building processes?<sup>16</sup> What passes as the consensus of the 'international community' today is seldom more than a fairly limited consensus among advanced industrial states, constrained by domestic political and economic considerations. This is well recognized in most post-colonial parts of the world, and the resistance to the import of yet another 'Western' product (however well-intentioned) is great. This is especially so where norms of multilateralism are only weakly developed and where bilateral (such as in South America) or hierarchical (such as in Asia)

<sup>13</sup> On strategic culture see, e.g., Klein, Y., 'A theory of strategic culture', *Comparative Strategy*, vol. 10, no. 2 (Jan.–Mar. 1991), pp. 3–23; Lain Johnston, A., 'Thinking about strategic culture', *International Security*, vol. 19, no. 4 (spring 1995), pp. 32–64; Katzenstein, P. (ed.), *The Culture of National Security* (Columbia University Press: New York, 1996); and the longer studies by many of the authors in that collection (in particular those by Elizabeth Kier and Alistair Lain Johnston).

<sup>14</sup> These are taken from Krause, K., 'Conclusions: security culture and the non-proliferation, arms control and disarmament agenda', ed. Krause (note 1), pp. 219–39. I define 'security culture' as 'those enduring and widely shared beliefs, traditions, attitudes and symbols that inform the ways in which a state's/society's interests and values with respect to security, stability and peace are perceived, articulated and advanced by political actors and elites'.

<sup>15</sup> I recognize that Indonesia also regarded Australia as partisan on the issue of Timorese independence, but in that case Australia only mirrored the stance of the international community.

<sup>16</sup> Mutimer, D., *The Weapons State: Proliferation and Visions of Security* (Lynne Rienner: Boulder, Colo., 1999); and Klare, M., *Rogue States and Nuclear Outlaws: America's Search for a New Foreign Policy* (Hill and Wang: New York, 1995).

relations are much more significant and where Western powers have left an ugly legacy of colonialism.

### Concepts of negotiation and diplomacy

Another sweeping generalization that contains at least a germ of truth would be that the successes of East–West arms control resulted in part from the subordination of intensely political and subjective problems (such as assessing the nature of the ‘Soviet threat’ or the stability of ‘rational deterrence’) to a rational, technocratic, step-by-step process of decision making and negotiation. This ‘bureaucratic rationality’ is so deeply ingrained in our mindsets that it is often difficult to recognize its cultural or social roots. As John Shy puts it, a rational and systematic approach to problems of war and peace ‘has become, during almost two centuries, so deeply embedded in Western consciousness that many adherents refuse to accept it as a “mode” of thinking at all’.<sup>17</sup> Two examples can be offered to illustrate the problem. First, in some cultural contexts, the Western penchant for ‘closing the deal’ simply does not resonate: no agreement is often considered a better outcome than an agreement in which one’s weakness has been openly acknowledged.<sup>18</sup> Second, in some cultural contexts, the logic of ‘step-by-step’ negotiation, in which one focuses first on the smallest practical obstacle that can be overcome, is countered by a negotiating style that concentrates on first negotiating the overarching principles or framework for the relationship and only then moving to the details once the overall principles have been put in place.<sup>19</sup> While neither of these differences creates insurmountable barriers to arms control and confidence-building processes in *some form*, they do render efforts to translate particular ‘successes’ problematic. They also help explain persistent frustration in some Western quarters with negotiating practices that are seen as purely dilatory or formalistic, yet which may be crucial to the processes of ‘making a deal’ in a different cultural context, especially when both (or all) participants have shared socio-cultural norms (as is often the case in intra-state conflicts).

<sup>17</sup> Shy, J., ‘Jomini’, eds P. Paret *et al.*, *Makers of Modern Strategy* (Clarendon Press: Oxford, 1986), pp. 184–85.

<sup>18</sup> The Harvard-developed ‘Best Alternative to No Agreement’ (BATNA) negotiating technique illustrates this perfectly. Fisher, R., Ury, W. L. and Patton, B., *Getting to Yes: Negotiating Agreement Without Giving In* (Penguin Books: New York, 1991); Zartman, I. W. and Berman, M., *The Practical Negotiator* (Yale University Press: New Haven, Conn., 1982); and Hopmann, P. T., Programme on Negotiation at Harvard Law School, ‘Arms control on Cobia: an eight-party, multi-issue arms control negotiation’, URL <<http://www.pon.org/product.cfm?productid=cs-arms>> (‘BATNA’ figures in 64 of the programme’s 92 simulations). During the Reagan years, it was also often argued that this pressure to ‘make a deal’ worked against the interests of the USA.

<sup>19</sup> This has particularly been an issue in the Middle East or in negotiations with China. Ben-Dor, G., ‘Regional culture and the NACD in the Middle East’ and Jing-Dong Yuan, ‘Culture matters: Chinese approaches to arms control and disarmament’, ed. Krause (note 1), pp. 189–218 and 85–128, respectively.

### **Domestic political cultural norms**

The way in which particular arms control and security-building practices ‘resonate’ (or are dissonant) with domestic political cultural norms and practices can have a significant impact on whether or not they are accepted as a foundation for post-conflict security building. This is perhaps even more the case in an intra-state than in an interstate context, where the various actors often (although not always) share a wide repertoire of common socio-cultural ‘referents’. Again, only anecdotal examples can be offered, but they highlight the depth of the problem. For example, ideas such as openness and ‘transparency’ (usually understood as a cornerstone of arms control efforts) are regarded in many regions of the world as completely alien. This is not just because of traditional ideas of military secrecy, which are widespread, but because there may be (e.g., in South-East Asia) few domestic political traditions in which the idea of openness or transparency could be seen as a positive political and social goal, to set against the need for some level of secrecy.

In a related way, issues of ‘face’, honour, prestige and status can often pose significant obstacles to a host of arms control and security-building initiatives. For example, an insistence on effective and intrusive verification can also run up against norms of trust and honour. In simple terms, how can one sign an agreement while at the same time insisting that one does not trust the other side to implement it by insisting on intrusive verification? On a deeper level, in some contexts ‘an extreme preoccupation with honour and shame [makes] . . . it difficult to concentrate on rational accommodations to end conflict, without the satisfaction of revenge’.<sup>20</sup> Similar issues of ‘face’ are important in Asia, where a failure to reach an agreement is often more acceptable than reaching one in which face has been compromised. By contrast, it is worth underlining that ‘American negotiators [and Westerners more generally] do not display the obsession with face so characteristic of collectivist cultures, and hence often follow “the maxim that any agreement is better than no agreement”’.<sup>21</sup>

### **The place of violence and norms of conflict resolution**

Underlying societal norms of conflict resolution and negotiation, and the role and place of violence in everyday life, can also have a great impact on the prospects for arms control in several ways. Most basically, in states and societies characterized by a ‘gun culture’ in which it is relatively unthinkable for a family or clan leader not to have ready access to a variety of weapons, systematic and comprehensive post-conflict disarmament efforts are almost cer-

<sup>20</sup> Ben-Dor (note 19), p. 201.

<sup>21</sup> Cohen, R., *Negotiating Across Cultures* (US Institute for Peace: Washington, DC, 1991), p. 132. See also Ting-Toomey, S. and Cole, M., ‘Intergroup diplomatic communication: a face negotiation perspective’, eds F. Korzeny and S. Ting-Toomey, *Communicating for Peace: Diplomacy and Negotiation* (Sage: London, 1990), pp. 77–95.



tainly doomed to failure.<sup>22</sup> In these cases, efforts should concentrate more on channelling disputes into appropriate avenues for conflict resolution or on providing the basic human or societal security that will reduce the personal (or group) need for self-defence. Although protracted wars often reinforce these cultures of violence (as the many recent images of child soldiers attest), the post-conflict environment is often one characterized by a certain degree of war-weariness that might facilitate the erosion of so-called 'cultures of violence'. This cannot be a mere act of will, however, since the most basic security needs of peoples and communities must imperatively be met in order to remove the threat of violence from public space.

## V. Conclusion

Neither the structural nor the cultural challenges to arms control in post-conflict and sub-state contexts should be seen as insurmountable obstacles to the development of practical and useful arms control and security-building measures. They do, however, suggest several constraints (and sometimes opportunities) that must be kept in mind when attempting to catalyse or assist post-conflict peace-building processes. Overall, the goal must be to anchor or 'embed' arms control within the broader economic, political and socio-cultural framework of the conflict. Sometimes this will require no more than a good dose of humility, recognizing that formal arms control may have limited applicability in many complex conflicts and that the conflicting parties have a greater engagement and longer endurance that allow them to outlast and overturn even the most persistent and best-intended of outside efforts. It would also not hurt if the cost, complexity and long gestation period of the Western 'arms control paradigm' were also more often acknowledged.

More proactive and thoughtful policies are also not beyond imagining. Perhaps the most immediate measure would be to take explicit account of the economic costs and incentives for perpetuating conflict and war for the various actors. Negotiators are quick to grasp the political and security costs and incentives of various arms control measures; they have been less attentive to designing explicit measures to put pressure on the main beneficiaries of the 'war economy' or to offering inducements to other actors. The recent attempt by the UN Security Council to deal with the Angolan situation by establishing a special sanctions committee is evidence of progress in this direction, as it highlights that the economic power of aggressive and/or nationalistic elites (such as in the Balkans) and the provision of economic incentives to other actors (such as nascent entrepreneurial elites) to engage in security-building efforts may be crucial to their long-term success.

<sup>22</sup> The example most often cited is that of the clan 'blood feud' tradition in various parts of the Balkans. One must not, however, exaggerate the ubiquity of violent cultures: several so-called 'gun cultures' are of relatively recent origin, and there is a great difference between the carrying of symbolic weaponry (e.g., a Sikh knife or weapon in Yemen) and the carrying of an AK-47.

A second positive measure would be to link arms control and security-building measures more closely to broader and longer-term conflict-resolution and -management efforts that work at a social and grassroots level. Again, there is a lesson to be drawn from the East–West experience: as long as arms control was perceived as a positive value among a large enough segment of the population, there was some possibility to overcome the suspicion and fear inherent in conflictual relationships (even those as deeply held as in the East–West conflict). Without this bedrock of support, arms control advocates and experts would have had a difficult time legitimizing their position and advancing their proposals, given the impressive array of obstacles and opponents that exist. Similarly, formal post-conflict security-building measures that take hold only at the politico-diplomatic level are unlikely to endure unless they can ‘resonate’ with a large and politically relevant segment of the population.

A third important step would be to incorporate an explicit humanitarian and ‘human security’ dimension into post-conflict security-building efforts. The language of ‘human security’ has become relatively common recently, but its implications for things such as arms control are seldom spelled out (the important exception being the 1997 Anti-Personnel Mines Convention).<sup>23</sup> Perhaps the main threat in a post-conflict (and especially sub-state conflict) situation is *not* that of renewed violence between the warring parties, but the use of violence and predation on the hapless population before, during and after the conflict.<sup>24</sup> States and regimes often pose greater threats to their citizens than any external threats. Thus explicit attention to the human and humanitarian dimension of conflicts would force arms controllers to choose sides, not between combating parties but between the people and the elites that have betrayed, manipulated or oppressed them. This would mean, in concrete terms, that a principal goal of post-conflict arms control should be to remove the threat of organized violence from social, political and economic life.

Of course, it is easy to preach the need for continued engagement and thoughtful policy development and difficult to implement them in practice. One has to also recognize that, too often, the exit strategy of the international community consists of two steps: the holding of an election that can be certified as ‘free and fair’ (whether or not the minimal conditions of healthy democratic politics can be met) and the establishment of some formal peace settlement that may or may not contain arms control provisions. Yet time and again

<sup>23</sup> Human security has been pushed most forcefully by the Canadian Government and by the associated group of ‘like-minded’ states. ‘Human security: safety for people in a changing world’, available at URL <<http://dfaitmaeci.gc.ca/HumanSecurity/secure.htm>>.

<sup>24</sup> Two important recent field studies by the International Committee of the Red Cross pointed out that casualties from small arms and light weapons remained high in both Afghanistan and Cambodia, even though active fighting had ended. Of course, other less concrete manifestations of insecurity also persist. Meddings, D. and O’Connor, S., ‘Circumstances around weapons injury in Cambodia after departure of a peacekeeping force: prospective cohort study’, *British Medical Journal*, no. 319 (1999), pp. 412–15; and Michael, M. *et al.*, ‘Incidence of weapons injuries not related to interfactional combat in Afghanistan in 1996: prospective cohort study’, *British Medical Journal*, no. 319 (1999), pp. 415–17.

it has been demonstrated that an ongoing engagement by the international community is required in order to diminish or eliminate the threat of renewed hostilities. This engagement needs to go beyond the politico-diplomatic sphere to encompass the humanitarian, social and economic dimensions of post-conflict security building. Despite a great deal of positive rhetoric, most contemporary post-conflict security-building efforts of the international development and humanitarian communities (both governmental and non-governmental) are only weakly coordinated with those of the diplomatic, military and security-building communities. There are no easy ways to bring these communities together, but a careful rethinking and redesigning of arms control policies and proposals to meet the requirements of post-conflict and intra-state situations would be a step in the right direction.

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# 16. Arms control as a conflict management tool

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Nicole Ball\*

## I. Introduction

During the cold war, the objective of arms control was to manage arms competition among antagonistic states. The hope, as expressed by Thomas Schelling and Morton Halperin in their volume *Strategy and Arms Control*,<sup>1</sup> was that arms control measures could reduce the likelihood of war, its scope and violence if it occurs, and the political and economic costs of being prepared for it. Cold war arms control efforts were not designed to address the underlying causes of conflict, and it was presumed that the parties involved were legitimate state actors. Furthermore, although arms control efforts could have included a broad range of countries and weapons or weapon systems, most arms control efforts during the cold war involved nuclear weapons and were framed in the context of reducing the likelihood of war between the USA and the USSR.

At the same time as the attention of the arms control community was focused on negotiating treaties aimed at minimizing the risk of East–West confrontation, some 40 million people died as a result of violent conflict. In the decade since the end of the cold war, an additional 6 million are estimated to have died.<sup>2</sup> Most of these conflicts involved minor powers and conventional weaponry—often quite unsophisticated conventional weaponry. Many of these wars had their roots in internal disputes and involved non-state actors as well as state actors of dubious or weak legitimacy.

Some of the most persistent of these conflicts—such as those in Angola, Cambodia, El Salvador, Ethiopia, Guatemala, Liberia, Mozambique, Namibia, Nicaragua, Palestine, Sierra Leone and South Africa—have officially been declared settled during the 1990s. In most cases, these settlements involved peace agreements defining the obligations of the parties to the conflict in the

<sup>1</sup> Halperin, M. H. and Schelling, T. C., *Strategy and Arms Control* (Twentieth Century Fund: New York, 1961), p. 2.

<sup>2</sup> Data for 1945–90 were compiled by Nicole Ball with the assistance of Milton Leitenberg. See appendix I, in McNamara, R. S., *The Post-Cold War World: Implications for Military Expenditure in the Developing Countries, Proceedings of the World Bank Annual Conference on Development Economics 1991* (World Bank: Washington, DC, 1992), pp. 108–13. Data for 1990–99 were compiled by Milton Leitenberg.

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security, political and economic realms. Not all of these peace agreements have prevented the recurrence of conflict, however. In addition, new internal conflicts have emerged—for example, in the Democratic Republic of Congo, Indonesia, Nigeria, a number of the successor states to the Soviet Union, and the former Yugoslavia. Other long-running internal wars, such as those in Burundi and Sri Lanka, have yet to be resolved. In consequence, internal conflicts continue to sap the economic and political vitality of a significant number of countries and are threatening the stability of entire regions.

In a 1992 essay outlining a new arms control agenda for the post-cold war world, Ivo Daalder argued that it was necessary ‘to rethink arms control in a manner that makes it relevant not just to situations characterized by antagonistic relations, but also to those where relations are improving and becoming more cooperative in character’.<sup>3</sup> In 1993, the disintegration of Yugoslavia led Daalder to take his analysis a step further.

Recent years have been a golden age for traditional arms control in Europe, as exemplified by the conclusion of historic agreements cutting conventional and nuclear forces and covering the whole gamut of military activities. Notwithstanding this notable progress, however, the post-cold war period has also been witness to the first indiscriminate and long-lasting use of arms [in Europe] since the end of the last world war. This contrast between the return of large-scale violence on the one hand and the unprecedented success of negotiated agreements controlling military forces on the other demonstrates that traditional forms of arms control have little to offer in mitigating the sources of conflict, violence, and war in post-cold war Europe, which today are to be found within rather than between states.<sup>4</sup>

It is also clear that the traditional forms of arms control have had little to offer the many countries outside Europe that have experienced internal wars or been drawn in to such wars since 1945. In view of the high costs these conflicts have exacted in term of lives lost or damaged, economic and development opportunities forgone, and societal disintegration, it is worth considering whether arms control can become more relevant in these environments and, in particular, whether it can help reduce the likelihood of war by addressing the underlying causes of conflict.

This paper examines the opportunities for arms control in countries where civil wars have been settled by peace agreements. The information it contains suggests that arms control is relevant in these situations but that the range of arms control activities needs to be expanded to incorporate the requirements of post-civil war conditions. It also suggests that arms control efforts following civil wars can make a modest contribution to addressing the causes of conflict when they form part of a comprehensive approach to conflict management.

<sup>3</sup> Daalder, I. H., *Cooperative Arms Control: A New Agenda for the Post-Cold War Era*, CISSM Papers 1 (Center for International Security Studies at Maryland, School of Public Affairs, University of Maryland: College Park, Md., Oct. 1992), pp. 7–8.

<sup>4</sup> Daalder, I. H., ‘From arms control to conflict control: reflections on the Yugoslav crisis’, Paper presented at a conference on ACFE and the Future of Conventional Arms Control in Europe, London, 12–14 July 1993, p. 1 (cited by permission of the author).

## II. Characteristics of the security sector following civil wars

Countries emerging from prolonged periods of internal conflict are characterized by bloated security establishments that can no longer be supported by peacetime budgets but remain a major political force, by an armed opposition and paramilitary forces that need to be disarmed and disbanded, and by an over-abundance of small arms. In contrast to democratic societies, where the armed forces are responsible for defending the country against external aggression and internal security is a civilian police function, police forces in conflict-affected countries are frequently controlled by the armed forces. The armed forces have, in turn, been primarily concerned with internal security. Paramilitary forces and other armed groups of civilians further complicate this equation.

The security forces often have a long history of human-rights abuses, are among the dominant political institutions in society, and may be major players in the economic sphere as well. They are unaccustomed to being held accountable by civil institutions; rather, executive, legislative and judicial agencies are frequently subservient to them. Furthermore, although politically and economically strong, security forces are often professionally quite weak. The police are incapable of guaranteeing law and order, and the armed forces cannot adequately protect the country against external aggression. There is consequently a need to redefine the roles and missions of the different elements of the security forces and to strengthen their capacity to fulfil these missions. Creating a professional, apolitical police force is a particularly urgent and challenging task given the uncertain political and economic environment in conflict-affected countries.

Countries that have experienced civil wars commonly lack a tradition of transparency in military affairs. Civilians in the executive and legislative branches of government often have a very imperfect idea of the size of the security forces, their equipment and the amount of money they spend annually. Few civilians have the capacity to manage security matters, and the defence ministry may be weak or not exist at all. Where defence ministries exist, they are frequently staffed by active-duty or retired military officers. Military personnel are highly suspicious of the motives of civilians, civilians are extremely fearful of military personnel, and there is likely to be a near-complete absence of civil–military dialogue.

These characteristics are not unique to countries that have experienced civil wars. Dealing with them is, however, particularly crucial and complex in these circumstances. Peace agreements often address some of these needs. None addresses them all. Where post-civil war peace processes attempt to deal with these issues, implementation is frequently uneven. Governments often do not have adequate the financial, human and institutional capacity to fully implement provisions of peace agreements and frequently lack the political will as well. The former armed opposition also may resist full implementation for

political reasons and is generally heavily dependent on the resources of the state or external actors for implementation. External actors frequently do not provide the level or consistency of support required, although it is clear that the commitment of external actors can be crucial in the success of peace agreements.<sup>5</sup>

### III. Peace agreements and the security sector

Peace agreements typically contain a range of provisions relating to the security forces.<sup>6</sup> These can be divided into six categories for analytical purposes. These categories are not mutually exclusive, and some items cut across two or more categories.

1. *Terminate violent conflict*: implement ceasefire agreements; separate forces; exchange information on force size, location and weaponry and on minefields; and reposition weaponry in defensive configurations.

2. *Reduce force size*: disband all informal armed groups, including the armed opposition, militias and paramilitary groups; downsize the state security forces; abolish specified units within the state security forces, particularly those closely associated with severe human-rights abuses; withdraw foreign troops and terminate contracts with mercenaries; and terminate extra-legal forms of recruitment.

3. *Limit access to weapons*: disarm all informal armed groups, including the armed opposition, militias, and paramilitary groups; sequester arms of informal armed groups, with ultimate disposition the responsibility of new, elected governments; destroy weapons belonging to informal armed groups; reduce the armaments available to the state security forces; establish time-limited restrictions on the acquisition of new military equipment; and provide information on the location of weapon caches.

4. *Restructure and reform the security forces*: review and reformulate the doctrines, roles, missions and structures of the armed forces and the police; and restructure the armed forces and the police.

5. *Enhance citizen security*: separate the police from the military, which may involve creating an entirely new police force; train the police in methods of democratic policing; strengthen the judicial system; vet members of and recruits for the security forces for previous human-rights abuses; reform the military and police education systems with a view to providing training in appropriate attitudes and behaviours in democratic societies; and strengthen civilian management and oversight of the security forces.

<sup>5</sup> Hampson, F. O., *Nurturing Peace: Why Peace Settlements Succeed or Fail* (US Institute of Peace: Washington, DC, 1996).

<sup>6</sup> The formal security forces of the state may include the armed forces, intelligence services, police forces and various paramilitary-type forces, such as customs police and border guards. Countries that have experienced civil wars will also have one or more armed opposition groups and informal paramilitary forces which may or may not be linked to the official security forces or opposition groups. Additionally, many civilians have access to weapons.

6. *Normalize political relations*: transform the armed opposition into a political party; and incorporate former members of the armed opposition into the armed forces and the police.

#### IV. Arms control in post-civil war environments

Several categories of arms control mechanisms are particularly well suited to post-conflict environments: disengagement, demilitarization, disarmament and confidence-building measures (CBMs).<sup>7</sup>

*Disengagement.* Disengagement involves physically separating the parties to the conflict to reduce the likelihood of a resumption of hostilities. Peace agreements routinely provide for a separation of forces as part of ceasefire arrangements. Members of the armed opposition and frequently the states' security forces may subsequently be confined to barracks or demobilization centres. Militias and informal paramilitary forces, however, may not be required to undergo the cantonment process. Some peace agreements, such as those for Bosnia and Sierra Leone, also require the withdrawal of foreign troops, including mercenaries.

For normal life to be resumed, however, the disengagement period following an internal war should be of limited duration. Although cantonment periods usually exceed the time frame specified by peace accords, the armed opposition and any government soldiers leaving the armed forces must eventually be reintegrated into society. Long disengagement processes are likely to be a symptom of a failing peace agreement. The cantonment process in Angola prior to the most recent resumption of war dragged on for nearly two years after the signing of the Lusaka Protocol, with both the government and the União Nacional Para a Independência Total de Angola (UNITA) but particularly the latter continually creating roadblocks to progress. This was a clear indication that one or both of the parties were not fully committed to implementing the agreement.

*Demilitarization.* Demilitarized zones have been used frequently in the resolution of interstate wars, and much less often in internal wars. In most post-civil war environments, sizeable demilitarized areas have not been created because the peace agreements have assumed that a legitimate government has the right to occupy the entire territory of the country. What is more, the international community—whether in the form of the UN or of regional bodies—is unlikely in most instances to provide the resources necessary to support demilitarized zones. Even in the Brcko area of Bosnia and Herzegovina, which was under the direct control of the Office of the High Representative because of a dispute over the Inter-Entity boundary, local police forces were not disbanded.

<sup>7</sup> Tanner, F., *Arms Control in Times of Conflict: A Contribution to Conflict Management in the Post-Cold War World*, PRAC Paper no. 7 (Center for International and Security Studies, University of Maryland: College Park, Md., Oct. 1993); and Daalder (note 4), pp. 15–18.



Recent experience in Kosovo indicates that the creation of demilitarized areas can be of value in post-civil war environments when it is impossible for the parties to reach agreement on the disposition of territory *and* the international community is willing to play an active role in keeping the peace in these zones. The Military Technical Agreement that was signed on 9 June 1999 between the International Security Force (KFOR) for Kosovo and the governments of Serbia and the Federal Republic of Yugoslavia essentially turned Kosovo into a demilitarized zone under the protection of KFOR. The demilitarization of the Kosovo Liberation Army (KLA) was required under the terms of UN Security Council Resolution 1244, although there have been problems in disarming the KLA forces.<sup>8</sup>

Temporary buffer zones—a more limited form of demilitarized zone—have been created on occasion around demobilization centres, along contested transport corridors, and near other key areas such as airports in order to minimize the risks of conflict among the parties. The most frequent use of buffer zones in the past decade has been to protect demobilization centres. The Guatemala peace accord, for example, established a security zone with a radius of 6 kilometres around each assembly area for the members of the armed opposition, the Unidad Revolucionaria Nacional Guatemalteca (URNG). No members of the URNG, the Guatemalan armed forces or the paramilitary Volunteer Civil Defence Committees which had been created by the armed forces were allowed access to these zones. Policing activities in coordination with UN verification units were allowed. Similar zones have been set up in Angola, El Salvador, Nicaragua, Somalia and Zimbabwe.<sup>9</sup>

*Disarmament.* Peace treaties generally require the parties to provide peace-keeping forces with inventories of weapons. All peace treaties require the armed opposition to be disbanded and disarmed. Some peace treaties include provisions for the demobilization and disarmament of portions of the armed forces, national police forces, militias and paramilitary units. The Guatemala accords committed the government to request that Congress repeal the decree creating the Voluntary Civil Defence Committees (Comités Voluntarios de Defensa Civil, CVDC) and required the CVDCs to be demobilized and disarmed within 30 days of the repeal. The El Salvador peace accords called for the disbanding of all civil defence units and the National Police. The latter, which had been under the command of the armed forces, was replaced by a civilian police force overseen by the Interior Ministry. The July 1999 peace

<sup>8</sup> Military Technical Agreement Between the International Security Force (KFOR) and the Governments of FRY and the Republic of Serbia, signed 9 June 1999; and UN Security Council Resolution 1244 (1999), 10 June 1999, paras 9 (b), 15. Both documents are available in the US Institute of Peace Library Digital collection of Peace Agreements, URL <<http://www.usip.org/library/pa/kosovo>>.

<sup>9</sup> On Guatemala, see Agreement on the Definitive Ceasefire, 4 Dec. 1996, available in the US Institute of Peace Library Digital collection of Peace Agreements, URL <<http://www.usip.org/library/pa/guatemala>>. For other countries, see Tanner (note 7), pp. 20–21.

agreement for Sierra Leone required the armed opposition, the Civil Defence Forces and paramilitary groups to be disarmed.<sup>10</sup>

To be effective, provisions concerning the disarmament of warring parties need to be implemented fully and impartially by multilateral peacekeeping forces. This means that all weapons have to be collected and properly disposed of, that known weapon caches need to be confiscated and unknown ones identified, and that the purchase of replacement weapons should be prevented. These functions have rarely, if ever, been adequately fulfilled. Although peace agreements routinely require members of the armed opposition and members of militias and paramilitary units to turn over personal weapons to peacekeepers on entering demobilization centres, many either do not turn in any weapons or turn in non-functional weapons.

The implementation of the Lusaka Protocol in Angola was perhaps one of the most egregious examples of the failure to disarm soldiers. Fully one-third of those entering UNITA quartering areas turned in no weapons and another one-third turned in non-functional weapons. Many of the individuals registered for demobilization were not even soldiers, and perhaps as many as 20 000 UNITA crack troops remained under UNITA control during the entire Lusaka Protocol period.

Even if soldiers turn in one functional weapon, the chances are strong that arms caches containing additional personal weapons and heavier armaments remain. Complete inventories of arms holdings may be impossible under conditions of civil war, but the parties are not eager to report what they do know they have. One of the more spectacular examples of the discovery of a hidden arms cache was when weapons belonging to the Salvadoran Farabund Marti National Liberation Front guerrillas exploded in central Managua, Nicaragua, several years after the El Salvador peace accord had been signed. Peacekeeping forces routinely decline to search for weapon caches. In some cases, they have declined to confiscate arms caches that have been brought to their attention or have allowed armed fighters to leave their area of responsibility.<sup>11</sup> In

<sup>10</sup> For El Salvador, 'New York Act II', 13 Jan. 1992, Chapter 1.10(b) and Chapter II; Peace Agreement Between the Government of Sierra Leone and the Revolutionary United Front of Sierra Leone, Lomé, 7 July 1999, Article XVI; and for Guatemala, Agreement on the Strengthening of Civilian Power and on the Role of the Armed Forces in a Democratic Society, 19 Sep. 1999, para. 61. The latter document can be found in the US Institute of Peace Library Digital collection of Peace Agreements, URL <<http://www.usip.org/library/pa/guatemala>>.

<sup>11</sup> A study of disarmament following the Mozambican civil war argued that 'Disarmament, which at first had been the prerequisite to holding elections, eventually became little more than an afterthought. . . . The weapons and ammunition that ONUMOZ recorded and returned [to the Mozambican Defence Force, FADM] were enough to arm the FADM many times over. Moreover, what ONUMOZ recorded is known to represent only a small portion of what the UN and the average Mozambican know to exist in barracks and warehouses and in caches hidden under the ground'. Berman, E., *Managing Arms in Peace Processes: Mozambique*, UNIDIR/96/22 (United Nations Institute for Disarmament Research: Geneva, 1966), pp. 72–75. According to the General Peace Agreement (GPA) which ended the Mozambique civil war, 'As of E-Day + 31, all collective and individual weapons, including weapons onboard aircraft and ships, shall be stored in warehouses under United Nations control'. Protocol VII.1.10 (a) 3. The GPA did not include any provision for the destruction of these weapons.

some cases, notably Somalia, peacekeepers have even returned confiscated weapons.

The failure of warring parties to turn in all weapons and of peacekeepers to compel them to do so has led to the proliferation of light weapons, both locally and regionally, and complicated efforts to implement peace agreements or otherwise terminate civil wars. In consequence, there has been an upsurge of efforts to control the proliferation of small arms and light weapons. Some of these involve weapon buy-back schemes at the national and sub-national levels, but there has been considerable debate about the utility of such programmes. Various bilateral, regional and international efforts have also been discussed or are in the process of being implemented.

The South African and Mozambican governments, for example, concluded an anti-crime agreement in 1995 which allows the police forces of the two countries to undertake joint operations in response to common safety and security problems. Specifically, the two countries have cooperated on identifying and destroying arms caches in Mozambique to prevent the weapons from being smuggled into South Africa. Individuals with information about hidden weapons have sometimes been paid for helping to locate those caches. Some of the resources to pay informants have come from private companies. Between 1996 and September 1998, South African and Mozambican police collected and destroyed over 300 tons of firearms and some 4 million rounds of ammunition from southern Mozambique. In October 1998 they began operations in central Mozambique and collected over 100 tons of weapons, including cannons and rocket launchers.<sup>12</sup>

At the international level, a number of governments and non-governmental organizations (NGOs) have recently stepped up efforts to reduce the flow of small arms and light weapons worldwide. The Norwegian Government, for example, has established the Norwegian Initiative on Small Arms Transfers (NISAT), headed by a former senior Foreign Ministry official. NISAT's core group includes the Norwegian Red Cross, the Norwegian Church Aid, the International Peace Research Institute, Oslo, and the Norwegian Institute of International Affairs. Their mandate is to initiate a joint international effort to study, control and limit global small arms transfers. Together with international and Norwegian partners, this core group expects to cooperate closely with the Norwegian Ministry for Foreign Affairs. A broad group of NGOs have formed the International Action Network on Small Arms (IANSA) to facilitate NGO action aimed at enhancing human security by preventing the

<sup>12</sup> Chachiua, M., *Arms Management Programme: Operations Rachel, 1996–1999*, ISS Monograph no. 38 (Institute for Security Studies: Pretoria, 1999). On buy-back schemes, see Meek, S., *Buy or Barter: The History and Prospects of Voluntary Weapons Collection Programmes*, ISS Monograph no. 22 (Institute for Security Studies: Pretoria, Mar. 1998). On regional aspects of light weapons proliferation, see, e.g., Institute for Security Studies and Saferworld, *Southern Africa Regional Action Programme on Light Arms and Illicit Arms Trafficking* (Institute for Security Studies and Saferworld: Pretoria and London, May 1998).

proliferation and misuse of small arms.<sup>13</sup> The EU adopted the Programme for Preventing and Combating Illicit Trafficking in Conventional Arms in June 1997 and the Code of Conduct on Arms Exports in May 1998.

*Confidence-building measures.* By enhancing trust among the parties to a conflict, arms control CBMs can contribute to reducing the likelihood of civil war and may indirectly address some of the sources of conflict. Following a civil war, a wide variety of arms control CBMs can be applied at both the national and regional levels.

Nationally, disengagement functions both as a means of limiting the opportunities for a resumption of conflict and as a confidence-building measure. By withdrawing its forces to their barracks, the government demonstrates its intention to abide by the terms of the agreement and encourages the armed opposition to canton its soldiers as well. Armed opposition groups typically test the commitment of the government by sending older soldiers and the disabled first. By submitting to encampment, the armed opposition indicates its commitment to the peace process.

Joint monitoring of security forces has also proven to be an effective national-level CBM. In South Africa, following the signing of the National Peace Accord, peace committees were established at both the regional and the local levels in an effort to stem the violence that was threatening to disrupt the process of reaching agreement on new constitutional arrangements between 1991 and 1994. It became evident that a major problem was the tendency on the part of police forces throughout South Africa to act with impunity. The creation of Joint Operations Communications Centres (JOCCs) was intended to enhance police accountability. The military representatives on regional peace committees set up JOCCs. They were manned by a regional peace committee staff member, representatives of political parties and other organizations represented on the regional peace committee, members of the South African Police and, where appropriate, members of the army and the traffic police. The centres had access to maps, aerial photographs, computers and dedicated toll-free telephone lines, and cars used by field workers attached to the regional peace committees were equipped with radios.

The police were expected to provide the JOCCs with regularly updated information on their activities such as the deployment of police officers and vehicles (including registration numbers), major security-force operations, arrests, shooting incidents involving the security forces and attacks on security forces. When police carried out an operation, the JOCCs coordinated all information, feedback, action and evaluation. Even in areas of intense violence, the JOCCs—along with other peace committee activities—helped reduce police impunity and increase the transparency and accountability of police actions.<sup>14</sup>

<sup>13</sup> Information on NISAT can be found at URL <<http://www.nisat.org>>. Information on IANSA can be found at URL <<http://www.iansa.org>>. Brief profiles of all IANSA members are available on this Internet site.

<sup>14</sup> See, e.g., Ball, N. and Spies, C., *Managing Conflict: Lessons from the South African Peace Committees*, USAID Evaluation Special Study Report no. 78 (US Agency for International Development:

Civil wars frequently affect more than the country in which they occur. Neighbouring countries are often drawn into civil wars, making regional arms control efforts an important component of the peace process. By reducing regional tensions that have been engendered or heightened by civil wars, regionally based arms control efforts can make it more difficult for the government that emerges following the civil war to justify devoting a substantial portion of the national budget to maintaining large security forces. They can also strengthen the hand of civil institutions and civilians in government vis-à-vis the security forces if conscious efforts are made to ensure that the civilians are in charge of the process.<sup>15</sup> Because so many civil wars have their roots in poor governance practices, including impunity, lack of accountability to elected, civilian-led governments, and financial autonomy on the part of the security forces, processes which help to reduce the economic and political power of security forces can help reduce the likelihood of a recurrence of civil war.

Washington, DC, Nov. 1998), especially pp. 27–29, also available at URL <[http://www.dec.org/usaaid\\_eval](http://www.dec.org/usaaid_eval)> under the heading ‘USAID Evaluation Special Study Reports’.

<sup>15</sup> See, e.g., United Nations, Department of Political Affairs, *Confidence- and Security-Building Measures in Southern Africa*, Topical Papers 14 (UN: New York, 1993); and *Regional Approaches to Confidence- and Security-Building Measures*, Topical Papers 17 (UN: New York, 1993).

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# 17. Arms control and peace settlements and the challenges of sub-state activities

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*Leonard T. Kapungu*

## I. Introduction

I will begin by acknowledging the apt inclusion of the question of arms control in the framework of peace settlements and sub-state activities among the topics of discussion at this symposium. It is a subject that fully reflects the palpable desire of the international community to safeguard world peace and security by promoting peace and stability in individual nation-states. It is, by the same token, a topic that rightly recognizes the growing anxiety of all peace-loving nations over the proliferation of conflict in various regions, the related excessive availability of weapons, and the ever crucial need for effective arms control arrangements on the platform of peace plans.

## II. Disarmament, demobilization and reintegration processes

This is a topic that truly sums up what we must agree is a sad and frightening feature of the international strategic landscape today, and one that I am very happy to discuss in this presentation. In this context, it is my pleasure to inform you that we in the Lessons Learned Unit of the United Nations Department of Peacekeeping Operations have just completed a study on *Disarmament, Demobilization and Reintegration of Ex-Combatants in a Peacekeeping Environment*. The study captures the core issues working both in favour of and against arms control measures, relative to peace settlements in general terms. I shall share them with you in this presentation.

Arms control is an inherently challenging and difficult process. Even under the most favourable conditions, it entails an intricate and cost-intensive procedure, in socio-political and economic terms. For successful implementation, it demands thorough and realistic preparatory plans, and the most decisive factor for its success is the genuine willingness of the affected parties to subject themselves, with visible transparency, to a process that will regulate their acquisition and usage of armaments. This often proves elusive.

The relationship between arms control, peace settlements and sub-state activities is a crucial one. Peace settlements rarely work unless they are totally accepted and respected by all parties to a conflict. In the same vein, such settlements rarely lead to durable peace and stability unless they provide for comprehensive arms control, effectively implemented through a compelling and thorough disarmament, demobilization and reintegration (DDR) process.

Furthermore, it is impossible for an arms control exercise to succeed unless all parties involved in a conflict fully abide by its prescriptions and regulations. This applies to state forces, as it does to sub-state groups.

### III. Peace processes

This was illustrated by the peace processes in Guatemala, Mali, Mozambique and Croatia, which are among the DDR success stories of this decade.

In Guatemala, a protracted 36-year conflict which claimed over 50 000 lives was brought to an end by a 1996 peace accord involving the UN, the government and the insurgents. The accord was preceded by an eight-month ceasefire period, which witnessed no incidents of violation—a clear demonstration of the mutual acceptance of the peace settlement and of the political will for sustainable peace between the parties to the conflict. This facilitated the arms control element of the settlement through the standard DDR process, under which the Guatemalan Army substantially reduced its strength as the ex-guerrillas willingly surrendered their weapons. The exercise was monitored by the UN and is acclaimed as a great arms control success in the aftermath of a conflict, although problems still persist regarding civilian possession of roughly 1 million weapons.

The case of Mali, regarded as the model for other areas of conflict in Africa, also demonstrated the importance of the mutual acceptance of a peace settlement and of the desirability of real peace between erstwhile enemies. Following a peace agreement of 1995, which ended the conflict of many years between the Tuareg rebels and the Malian Government, their common quest for peace facilitated an impressive disarmament process. Most of the rebels surrendered their arms willingly in a weapon collection exercise. Thereafter, the government made a symbolic bonfire of some of those weapons, in the now famous ‘flame of peace’ of 27 March 1996. The international community acknowledged that symbolism as an exemplary arms control initiative in the search for a solution to the increasing proliferation of small arms in the world.

The success story of Mozambique was rooted in a similar shared interest and political will between the Frente de Libertação de Moçambique (FRELIMO) Government and the opposing Resistencia Nacional Mocambicana (RENAMO) guerrillas to end their relentless war of 15 years on the platform of the General Peace Agreement of 1992. The United Nations Operation in Mozambique took full charge of the planning, execution and verification of the arms control provisions of the agreement. Under the applicable prescriptions, ex-combatants on both sides were registered, assembled, disarmed, demobilized and rehabilitated through reintegration programmes that provided vocational training and similar schemes to help them settle into normal civilian life.

Similarly, in Croatia immense cooperation between the Croatian and Yugoslav leaderships enabled the successful implementation of the arms control

provisions of the Basic Agreement of November 1995, under the direction of the UN Transitional Administration for Eastern Slovenia, Baranja and Western Sirmium. The agreement had called for the demilitarization of the region and for the peaceful integration of Eastern Slovenia, Baranja and Western Sirmium into the Croatian territory. The exercise went smoothly, ensured the dissolution of the Army of Republic Serb Krajina and the disarmament of the residents in the area. The weapons were deactivated, destroyed or handed over to the Croatian Government. At the end of the operation, Eastern Slovenia, which had been an armed camp organized for war, was transformed into a region of relative peace.

#### IV. The failure of the peace terms

Unfortunate conflict situations in which no such success attended peace initiatives because of the intransigence of sub-state opposition groups include the cases of Angola, Liberia, Cambodia, Colombia, Nicaragua and El Salvador, among others. The Angolan conflict has been one of the most severe and intractable conflicts the world has witnessed since the 1970s. Continuing mutual distrust between the government and União Nacional Para a Independência Total de Angola (UNITA), owing to years of bitter fighting, led to the lack of political will to truly accept and respect the series of peace agreements that had been negotiated to end the conflict. The arms control provisions of the Lusaka Protocol (the peace agreement signed in November 1994) failed woefully, as the leadership of UNITA did not cooperate. They were not prepared to disclose accurate information regarding the strength, location and weapons in the possession of their troops, nor were they willing to allow the verification and observation tasks of MONUA—the now withdrawn UN Peacekeeping Mission to Angola. That thoroughly undermined the disarmament and demobilization elements of the peace agreement. The country returned to war.

The case of Liberia was not much different. The series of political and diplomatic initiatives conceived to bring peace to the country had all provided for comprehensive arms control, none of which succeeded owing to the failure of a mutual acceptance of the peace terms by the warring factions. Between 1993 and 1995, Liberia readily slid back to war. Eventually, under the Abuja Peace Agreement, concluded in 1995, the Economic Community of West African States Monitoring Group, in conjunction with the UN Observer Mission in Liberia, implemented relatively reasonable DDR measures.



## V. Some case studies

Turning to Cambodia, the Paris Accords, signed on 23 October 1991, led to the establishment of the UN Transitional Authority in Cambodia (UNTAC). The mission was charged with supervising, monitoring and verifying the ceasefire and other arms control-related provisions of the peace settlement. Under the accords, the four Cambodian factions had agreed to undergo a phased and balanced process of demobilizing at least 70 per cent of their military forces in order to create a neutral and secure political environment for the benefit of the elections. UNTAC planned to accomplish this through a ceasefire programme for assembling, disarming and demobilizing the soldiers. Its efforts came to nought because one of the factions—the Party of Democratic Kampuchea—decided after all not to cooperate with the process. Its soldiers remained heavily armed and repeatedly violated the ceasefire. Consequently, only 52 292 soldiers were disarmed—a negligible percentage of the estimated 203 300 armed troops. The demobilization process had to be abandoned. The elections were eventually held successfully but the country remained haunted by the presence of thousands of armed dissident combatants and the abundance of deadly weapons. Here again, the country reverted to war.

Regarding Colombia, the conflict between that country's government and guerrilla groups—mainly the Fuerzas Armadas Revolucionarias Colombianas (FARC) and the Ejército de Liberación Nacional (ELN)—is one of the oldest in the world and is exacting a terrible socio-political and economic toll from the people. The conflict, which has displaced and killed over 1 million Colombians, is closely linked to the problem of illegal drug-trafficking in the country, which in turn is interconnected with a shocking influx of arms and ammunition there. The conflict remains resistant to peace initiatives by the Pastarana Administration largely because the guerrillas rejected ceasefire proposals and unilaterally demanded the demilitarization of certain municipalities, which foreclosed any serious arms control exercise.

In the case of Nicaragua, following the provisional ceasefire that ended the conflict between the Sandinista Government and the Nicaraguan Resistance (Contras), the UN Observer Group in Central America was deployed. Among other tasks, it was to verify the voluntary disarmament, demobilization and reintegration of the Contras. The exercise began in Honduras, which had served as a sanctuary and operational base for a substantial number of the Contras. Subsequently, it moved into Nicaragua itself and later to Costa Rica.

In the end, there was widespread disenchantment among the soldiers on both sides and among the population at large. As did conscripts and reservists among the government's forces, many of the Contras complained that they did not receive the kind of demobilization packages they had expected. Similarly, the disenchanted public, especially those in the rural areas, lost faith in the peace process, pointing out that they felt left out and that there were far too

many unfulfilled expectations. Consequently, most of the demobilized Contras regrouped and rearmed as the Recontras, which drove a good number of their counterparts among the Sandinistas back to the gun as the Recompas (Partner). The scenario was further complicated by some 15 000 armed civilians in the country. It is estimated that there are up to 40 armed groups in the northern part of the country, making violence and criminal activities a way of life there.

Considering the case of El Salvador, the implementation of the arms control element of the peace plan for the settlement of the 11 years of conflict between the government and the group of opposition forces (Farabundo Marti National Liberation Front, FMLN) was also seriously undermined by the peoples' lack of faith in the process. The UN Observer Mission in El Salvador did not have the mandate to enforce weapons collection and had to rely on the trust of the people to make the process work. The lack of that trust was manifested with the realization that there were up to 300 000 weapons still held by unauthorized people at the end of the disarmament period, which had been extended three times. This was blamed on the inadequacy of the integration programmes and of plans designed to ease the smooth return of the ex-combatants to civilian life. As in the case of neighbouring Nicaragua, El Salvador is caught in the fangs of a weapon proliferation among its civilian population. Violence and crime remain a major cause of insecurity and the biggest concern for the authorities. Both countries are exploring special incentives (a 'goods for guns' programme in El Salvador and a 'gun buy-back' programme in Nicaragua) to inspire the voluntary surrender of weapons by their people.

It is apparent that the greatest challenge which opposition forces, or so-called sub-state groups, pose to peace settlements is their tendency to scuttle integral arms control provisions. The consequences are of monumental economic and social proportions, not only for the country directly affected but also for their regions and for the international community at large. When the arms control provisions of a peace plan fail, even if all other aspects of the plan succeed, real peace is seldom achieved. Chances are that renewed fighting will break out among the parties addressed and/or the society itself will remain dangerously militarized.

Angola and Colombia are two ready examples in this regard. Renewed fighting in Angola led to the distribution of at least 700 000 weapons to civilians. The gun culture that has flourished in the country is best illustrated by the fact that guns can be exchanged for a bag of old clothes there. Colombia is faring much worse, with an estimated 3–5 million weapons in civilian hands and one of the world's highest murder rates, exacerbated no doubt by the connection between those weapons and the narcotics syndicates in the country.

Cambodia, El Salvador and Nicaragua are all equally traumatized by the excessive number of weapons among their people. This has fuelled the formation of other criminal armed gangs that operate with impunity, engaging in

armed robbery, kidnapping, extortion, arms trafficking and a variety of similar criminal activities that have severely undermined their socio-economic rehabilitation and any hopes for stability. Given the porous nature of the land borders of many of these countries, direct implications for international peace and security lie in the rife potential for the illicit movement of weapons from these countries to their neighbours, where latent conflicts and criminal activities can easily be ignited.

By their very nature, and by the basic and generic principle usually governing their operation as 'invincible and uncompromising freedom fighters', insurgent groups or guerrillas, or sub-state groups as the case may be, are not often easy to deal with. In the framework of peace settlements, it can be quite hard to identify every member of such organizations. Some of them, unwilling to be disarmed, could quietly and easily slip away at the end of a conflict, while many of those who present themselves as ex-combatants may not really be what they claim to be. Thus, even in cases where arms control provisions may be said to have been implemented with reasonable success, as in Mozambique, a good number of former soldiers are still found with their arms. For example, one ex-RENAMO soldier who refused to turn in his arms during the DDR exercise in the 1992 peace process was quoted by a source from the British American Security Information Council (BASIC) as having noted that 'guns can mean food. We do not want to go hungry'. That perceived potential value of the gun was also consistent with the thinking of their FRELIMO counterparts, one of whom similarly told BASIC, 'we knew that guns make good business. So we kept the best for ourselves'. Continuing, he reportedly acknowledged, 'I have sold some to dealers. I keep others for the future'. The intractable problem for the DDR process then is how to ensure that as many of the real ex-combatants as possible are identified and effectively disarmed. It should be emphasized, however, that the process is by no means easy.

The challenge which recalcitrant opposition forces pose to peace initiatives and integral arms control prescriptions is a challenge to international peace and security. It is indeed a challenge that should actively engage the international community, and one that should be jointly addressed with total commitment and a resolute sense of purpose. The satisfactory fulfilment of the arms control element of peace settlements, through the DDR process, demands the utmost assistance of the international community. The findings of the Lessons Learned Unit study of the DDR process in a peacekeeping environment, mentioned above, are reinforced by the several messages conveyed by the failure of such measures in the cases I have discussed briefly here. These messages help to explain what went wrong and where the international community can help. Let me emphasize, however, that these messages signify that sub-state activities do not constitute the only challenge undermining the arms control prescriptions of peace settlements.

## VI. Lessons learned

The main lessons we should learn are the following.

1. Peace agreements and their arms control elements would not work if the root causes of the conflict they addressed were not tackled. This was true of the case of El Salvador. The end of an armed conflict does not always translate into the end of its consequences. It is, therefore, as crucial to end a conflict as it is to resolve the issues that sparked it in the first place.

2. Arms control and disarmament measures must be clearly and specifically outlined in peace agreements as the cornerstone of national reconstruction programmes. Their successful realization will largely depend on the establishment and operation of timely and efficient planning, implementation, and supervisory structures and institutions. A delay of the process in Liberia considerably hampered this.

3. If opposition groups are assured of the wherewithal to pursue a military settlement to their advantage, they are likely to resist a peace settlement and arms control measures, no matter how reasonable those measures are. This is true of UNITA in Angola, which counts on the diamond resources of its stronghold, and of the FARC/ELN in Colombia, which count on the proceeds from the drug trade. The challenge to the international community is to effectively neutralize such means through a credible regime of sanctions and isolation, coupled with humanitarian aid to alleviate the suffering of the people.

4. The arms control provisions of peace agreements should be conceived to address the entire population and their implementation facilitated through a comprehensive rehabilitation strategy that also caters to the needs of the people as a whole. To recall the observation of the UN Secretary-General, civil society has a vital role to play in peace processes. They must be given their due stake in the exercise and need to be fully mobilized in that regard through vigorous sensitization programmes at the grassroots level. It must be acknowledged that, as does the incomplete disarmament of ex-combatants, the substantial number of weapons left in the hands of civilians undermines the arms control dimension of peace plans and the potential for peace building in affected countries. The experiences of El Salvador and Nicaragua are perfect examples here.

5. The reintegration and rehabilitation packages offered by peace settlements must be reasonable and satisfactory relative to the needs of ex-combatants. It goes without saying that peace plans and their arms control provisions would thrive only with attractive socio-political and economic programmes that would make a return to arms a losing proposition in comparative terms. The failure of the arms control process in Nicaragua, following the rearmament of the Contras and some of their Sandinista counterparts, as well as the unwillingness of armed civilians in the country to surrender their arms, underlined the dissatisfaction of many of the ex-combatants and of the people with the

reintegration/rehabilitation package offered by the peace plan. The reference to food by the ex-RENAMO soldier in Mozambique interviewed by BASIC conveys signals to the same effect. In this context, the international community can help facilitate arms control measures through generous cash donations and by the provision of socio-economic facilities, including vocational training, for example, required for securing compelling rehabilitation packages that would work. It needs to be underscored that arms control processes in peace settlements need readily available adequate financial and logistical support to succeed. Nonetheless, it should be noted that the offer of incentives in this regard needs to be carefully made in a way that would not seem to be rewarding those who choose violence as a way of settling disputes.

6. Above all, the effective implementation of arms control measures in peace settlements demands the establishment of regional and subregional mechanisms that would help stem the illegal flow of arms across national boundaries, either through the activities of opposition groups and other criminal gangs or possibly through official national conduits. This requires the participation of regional and subregional organizations, backed by the moral force of the UN and its agencies, non-governmental organizations, other international groupings and governments.

World peace is a collective responsibility—our collective responsibility. The quality of the world peace we get is directly or indirectly affected by conflict situations in individual states. The problem which sub-state groups pose to peace agreements and arms control today is a challenge to world peace as a whole. We must tackle this challenge together, in strength.

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## 18. Transparency and verification: a Swedish perspective

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*Staffan Sohlman*

### I. Introduction

My approach to the subject of this symposium differs from that of most speakers heard here, in spite of the fact that I deal on a daily basis with arms control—arms export controls, to be more precise. I consider myself as a practitioner, in the words of Dr Adam Daniel Rotfeld.

I am head of the Swedish National Inspectorate of Strategic Products, the governmental agency that approves or denies licences for the export of military equipment and strategic products. The inspectorate is also the National Authority under the 1993 Chemical Weapons Convention (CWC).

My decisions regarding exports of military equipment and dual-use products are based on Swedish laws and regulations, on European Union (EU) directives and on agreements in international arrangements for the non-proliferation of weapons of mass destruction (WMD), the Nuclear Suppliers Group (NSG), the Missile Technology Control Regime (MTCR), the Australia Group and the Wassenaar Arrangement.

Swedish laws stipulate the prohibition of exports of military equipment—exceptions, that is, licences, are granted only after close scrutiny. This scrutiny is still national but account is also taken of the 1998 EU Code of Conduct for Arms Exports. I think that, over time, we will see a harmonization of policies within the EU. A factor in this process is the reconstruction, indeed integration, of the European defence industry.

Licences for exports of dual-use goods are normally granted, as the bulk of the products have perfectly legitimate destinations and users. Only in exceptional circumstances are licences not granted. This is the case when the end-user is considered unreliable—either supposedly associated with the production of the weapons of mass destruction or suspected of passing the products on to another destination.

Decisions regarding dual-use goods are frequently very difficult. Equipment for the production of vaccines can also be used for producing biological weapons, as mentioned by Ambassador Rolf Ekéus. For a small country with a strong wish not to contribute to the dissemination of WMD but without a large intelligence network, an important element is getting a sufficient basis for a decision to seek advice from among the other, better informed members of the arrangements. One group, the Wisconsin Project on Nuclear Arms Control,

publishes a Risk Report on the Internet.<sup>1</sup> The Risk Report lists suspect persons, companies and WMD programmes.

This is by way of a very short background. What struck me in reading a number of the papers for this symposium and in listening to the debate so far was the almost total absence of the whole international structure against which my daily work takes place. I was pleased to see that Rolf Ekéus in his paper mentioned both the MTCR and the Australia Group, without any pejorative adjectives. In the discussion I have not heard the Wassenaar Arrangement or the NSG mentioned. I mention the Wassenaar Arrangement in particular, because I am currently the chairman of its Plenary.

## II. The Wassenaar Arrangement

The Wassenaar Arrangement is an interesting product of the cold war era, having been established when the Coordinating Committee on Multilateral Export Controls was terminated. It is worth its own intervention.<sup>2</sup>

What I discern, reading the documents, are two cultures: one the high culture of foreign policy, UN policy, UN conventions and arms treaties; and the other a more pedestrian arms export control activity taking place in a number of countries. I will talk about two cultures but I am aware that there are activities which really belong to both cultures. I am referring to the Organization for Security and Co-operation in Europe in particular. There are, for all these activities, common basic objectives, fundamentally to lessen the risks for armed conflict.

The basic document of the Wassenaar Arrangement states that its basic aim is to 'contribute to regional and international security and stability by promoting transparency and greater responsibility in transfers of conventional arms and dual-use goods and technologies, thus preventing destabilising accumulations'. The Australia Group, the NSG and the MTCR are more specifically aimed at the non-proliferation of WMD but their basic objectives are very similar.

The United Nations non-proliferation efforts and the export control arrangements named above have similar basic objectives. Moreover, there are some similarities in their approach to achieving these objectives. The differences in approach, however, are more obvious than the similarities.

*Membership.* In the UN context, the natural tendency is to try to achieve universal participation. In the arrangements there is no limit to the number of member states, but universal participation is not sought. Relevant membership is restricted to those countries that fulfil certain criteria such as effective export control or production of products covered by the arrangement.

*Legal status.* A second difference relates to the legal status. UN conventions are basically legally binding and ratified by parliaments. The arrangements are

<sup>1</sup> See URL <<http://www.wisconsinproject.org/risk.html>>.

<sup>2</sup> The Wassenaar Arrangement Internet site address is URL <<http://www.wassenaar.org>>.

not ratified. In my view, they are primarily of a political character. However, an interesting doctoral thesis by a Swede, Christer Ahlström, entitled 'Status of Export Control Regimes', argues that the distinction is less clear.

*Obligations.* A third distinction relates to the obligations entered into. In UN conventions states agree not to use, produce or acquire certain weapons—chemical weapons or anti-personnel mines. In the regimes the obligations relate to export controls.

*Methods.* A fourth distinction is the methods. The conventions have as an important tool declarations concerning production and inspections. The regimes essentially deal with reported transfers or denied transfers.

Finally, the cultures are characterized by different languages and different representation.

The concept 'developing world' would hardly appear in discussions within the arrangements.

### III. Conclusion

Permit me to end by indicating a few items that from my perspective should figure on a future arms control agenda.

1. The first is regional disarmament or stabilizing pacts. One example is the Moratorium on Arms Imports in Western Africa. One must not overestimate the results, but the initiative deserves support. I am glad that Dr Leonard Kapungu mentioned this initiative of the President of Mali in his paper.

2. Small arms is a subject in focus, and rightly so. Many have pointed out their role in conflicts in the past decades. This is a difficult area, given the large number of producing countries.

3. The regimes should be more transparent. There is suspicion among non-participants that could be dissipated early if basic documents were published or at least made available to interested countries. Transparency could also be achieved through more intensive outreach activities towards non-participants.

4. The regimes should be expanded to include all major actors on the world scene. There are, unfortunately, still a few major actors not present in several of the regimes. Some of them have expressed interest but their presence is held up by a lack of consensus.

5. There should be close cooperation between the arrangements. It is almost absurd that three of them should arrange seminars on the intangible transfers of technology. I fear that this is due to sphere of interest in capitals rather than any differences between the arrangements. Outreach activities could be streamlined to the benefit of those reached out to.

6. There is an obvious relationship between the Chemical Weapons Convention, the Biological and Toxin Weapons Convention and the Australia Group. Could it be improved? More transparency would probably help.

7. Finally, I hope that we will see more challenge inspections under the CWC than we have seen so far.



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# 19. Arms export controls

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*Ian Anthony*

## I. Introduction

Although both can have an impact on the military capabilities of states, export controls have different characteristics from other arms control instruments. Arms control has normally been defined as a process by which states develop a common instrument that can be applied in order to address a mutually agreed security problem. Export controls offer a state an instrument with which it can act on concerns it may have about the security policy implications of behaviour by other states. Whereas arms control is normally conceived as a process by which states place limits on their own military capabilities, export controls can, under certain conditions, place limits on the capabilities available to other states.

Export controls have both a political and a military dimension. By applying export controls to a particular target, a state is signalling a potential concern about the behaviour of that target. Denying an exporter permission to transfer specific items to a particular recipient can have an impact on the military capabilities of the state in which that end-user is located.

These characteristics have made export controls a sensitive and controversial topic. The supporters of export controls have argued that the particular characteristics of export controls that make them sensitive also make them a valuable instrument in the present security environment. The fact that they can be applied to a particular state or military programmes of concern and the fact that they do not require consent from the target increases the efficiency of decision making and eliminates the burden of implementation on states that are not targets. Opponents of export controls argue that the same characteristics undermine the legitimacy of the instrument. A system in which the target is excluded from decision making and has no right to explain its actions or to appeal any decision is argued to be unfair. The target will have strong incentives to try to undermine such a system and may find sympathetic partners willing to help. Ultimately, therefore, lack of legitimacy will undermine effectiveness.

At this point it is useful to provide clarification about what export controls are. An export control system allows a choice to be made about whether or not to allow a particular export to take place. In general terms, an export has usually been considered to mean the actual shipment or transmission of an item out of the customs jurisdiction of a state. An item in this context can mean a commodity, a technology or a service. It should be noted that there is no

agreed definition of an export and different states use the term differently within their national export control systems.

During the 1990s a growing number of states have cooperated in the discussion of export controls. However, no multilateral regimes have decision authority over specific transfers.

There are regimes and arrangements in which governments come together to discuss export control issues.<sup>1</sup> However, in each case any agreed position or rule is put into effect through a national export control system. The way in which particular rules and principles are interpreted is a matter for national authorities.

Although there is no treaty or law that requires states to establish a national export control system, it can be argued to be an indirect obligation arising out of the UN Charter. In Article 2.5 of the Charter members have pledged 'to give the UN every assistance in any action it takes in accordance with the present Charter, and *shall refrain from giving assistance against which the United Nations is taking preventive or enforcement action*' (emphasis added). To ensure that they can comply with UN embargoes, states need to have in place standing mechanisms to establish and control the flow of arms and related equipment from their countries.

The establishment of an export control system by states should be differentiated from the discussion of how that system is implemented. The fact that data are gathered on exports and permission is required before certain items can be exported does not by itself imply that governments are attempting to deny any specific item to any specific end-user.

Export controls are not the same as an embargo, which is the total suspension of commercial activity either in a specified area (e.g., an arms embargo) or more generally (in a trade embargo). Through an export control system a state can (and very often does) authorize a particular export.

Export controls are not the same thing as sanctions. Sanctions are penalties that are imposed in order to punish disobedience. They are intended to bring about compliance with a particular law or agreement. As such, sanctions (and in particular unilateral sanctions) are seen as being inconsistent with the sovereign equality of states unless they are imposed under very particular conditions—usually by the UN Security Council and until recently in response to a breach of international peace and security.

A decision taken by a state to deny permission for a particular export is an expression of the sovereign right of the exporter to make a judgement about international security matters. The export control authority that denies permission for an export is not punishing the target state or seeking to bring about compliance. Rather, the authority is saying that this is an activity in which it does not wish to participate. This act of denying permission to export does not in itself say that the activity in question is illegal or inappropriate. The authorities of the exporting state may in fact believe the particular activity to which a

<sup>1</sup> See chapter 18 in this volume, by Staffan Sohlman.

denied export is connected to be illegal or inappropriate, but that is a separate matter.

## II. The content and organization of export control discussions

During the 1990s the architecture of export controls has changed fundamentally in response to a range of factors. Moreover, this process of change is dynamic and continuous. At present there are 30–35 states that participate in the various multilateral regimes and arrangements where export controls are discussed.<sup>2</sup> In his chapter in this volume, Ambassador Staffan Sohlman points to the existence of two separate cultures: a ‘high culture’ of foreign policy, UN policy, UN conventions and arms treaties, and a ‘more pedestrian’ arms export control activity along with other substantive differences in the participation, legal status, obligations, and methods of arms control and export control.<sup>3</sup>

In the first half of the 1990s, the most important factors stimulating a discussion of export controls were the end of bipolar competition in the international system, a recognition that the drawing down of military capacities in Europe should be managed in ways that did not lead to a militarization of other regions, and an increased emphasis on the need to find mechanisms for conflict resolution between states at a regional level.

In the second half of the 1990s additional and different pressures came to bear on the export control debate. In particular, during this period states expanded their definition of international security to include not only armed conflicts between states but also armed conflicts within states. At the end of the 1990s a further expansion of the definition of international security was taking place as the actions of states towards their own citizens—the safeguarding of individual and group human rights along with the constitutional and political arrangements of states—came to be seen as legitimate issues for a wider international community to discuss.

A common factor across the period after 1990 has been the strong interest of the United States in cooperation in the development of multilateral export control. This strong interest has been found in both the executive branch of government and increasingly in the Congress. The interest in cooperation has also reflected pressures exerted by US exporters concerned about the implications of US unilateral approaches to export control on their own commercial operations in other countries.

The multilateral export control discussions and the development of national export control systems, as instruments that governments can apply to policy questions, inevitably reflected this background.

In the first half of the 1990s the main element of discussion within the multilateral arrangements was how export controls might help create stability in

<sup>2</sup> Anthony, I., ‘Multilateral weapon and technology export controls’, *SIPRI Yearbook 2000: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 2000), p. 668.

<sup>3</sup> Sohlman (note 1).

conflict-prone regions such as the Middle East and the Persian Gulf. Cooperation between exporters was seen as one of a range of instruments that could be used to address security threats, including the proliferation of nuclear, biological and chemical (NBC) weapons along with missile delivery systems for such weapons as well as the potentially destabilizing imbalance of conventional military capabilities across the Middle East and Persian Gulf regions.

Export controls were conceived as complementary to other processes for which expectations were high in the early 1990s. First, it was hoped that political and economic cooperation would develop in the framework of a regional peace process that included normalization of relations between Israel and other states (in particular its neighbours) and the settlement of outstanding disputes. Second, it was hoped that the global arms control and disarmament instruments then being negotiated would include full participation from states in the Middle East and Persian Gulf. Third, it was hoped that this regional peace process would lead to the development of regional arms control arrangements that could be supported and implemented by states outside the region through export controls.

One reason why export controls have not been more fully integrated into this broader security system has been the successive failure of other processes. The Middle East peace process has not progressed as had been hoped, some important global arms control instruments of relevance to the region have not been concluded (including additional protocols to the 1972 Biological and Toxin Weapons Convention, BTWC, and anticipated further steps in nuclear arms control). Key Middle Eastern countries remain outside important treaties that have been concluded (the 1993 Chemical Weapons Convention, CWC, and the 1968 Non-Proliferation Treaty, NPT). Moreover, with the exception of the Americas, conflict-prone regions and sub-regions have so far resisted the development of regional security building.

As a result, although the export control regimes and arrangements have continued their work and have progressed, the overall end result has, to a certain degree, been 'the sound of one hand clapping'.

As noted above, in the second half of the 1990s export control measures have been applied to issues that are new and non-traditional in their scope. Traditional questions addressed by export control (what should be controlled and to whom?) are now being posed in a different context.

The application of export controls to internal armed conflict created a new set of challenges for some techniques that are central to the implementation of export controls. To give one example, the main participants in an internal armed conflict may be paramilitary or police forces rather than regular armed forces. Implementing export controls that allow exports to the regular armed forces for purposes of national self-defence but deny exports to forces engaged in prosecuting a civil war require mechanisms for differentiating between end-users and end-uses within the same state.

The application of export controls to cases where a violation of individual or group human rights is taking place also introduces new complexities. Muni-

tions and commodity control lists have been developed in the past to include items that are relevant to military end-uses. Items that are used to violate individual or group human rights may have no military application but may have been developed for use within the police or criminal justice system. As such, it is necessary for export control authorities to agree additional control lists or to supplement existing ones to include civilian items that have no specific military end-use.

In developing these new techniques and documents export control authorities are often faced with controversial questions to which there is as yet no agreed answer. For example, what is a violation of individual or group human rights? To illustrate with a concrete question, if the security services of a state are using surveillance or eavesdropping devices to monitor the activities of political opponents of the governing party, should the export of all such devices be controlled? Should exports of such devices be controlled globally (i.e., should exports to all countries require permission) or should controls be applied only to a sub-set of countries? If the controls apply to a sub-set of countries, which particular countries should be on this country control list?

As the export control regimes have, to a certain extent, been hindered by adverse developments in the wider environment in which they must operate, they have devoted a lot of their attention to what Ambassador Sohlman calls the 'pedestrian issues'. These include the drafting of export control laws and regulations, the development of control lists, the processes that are essential to implementing laws and regulations (i.e., licensing and enforcement).

In what can be thought of as an export control system (consisting of the regimes and arrangements along with the states that participate in them) an interesting series of interactions, cross-pressures and influences can be observed between the different constituent parts.

The group discussion is shaped and informed by national interests and capacities). This is in line with what could be predicted about the activities of a regime operating without a set of legally binding rules. However, without wishing to overstate what has been accomplished, another dynamic can also be observed.

Through their continuous work within cooperative regimes and arrangements it is possible to see the development of what has been called a 'no-undercut attitude' among states that participate. That is to say, countries are prepared to discuss a collective approach to export control rather than seeking to exploit the policies of other countries to create opportunities for domestic exporters.<sup>4</sup>

<sup>4</sup> Haupt, D. R., 'Europeisk exportkontrollharmonisering: rättsliga och politiska synpunkter' [European export-control harmonization: legal and political standpoints], *Förvaltningsrättslig tidskrift*, vol. 62 (1999), p. 222 (in Swedish). Haupt points to the European Union Code of Conduct on Arms Exports as evidence of the gradual emergence of 'a previously unknown culture of openness' on arms export questions. This openness could in time lead to the development of common norms that could in turn help shape national policies and procedures.

This attitude in turn has been reflected by changes in national practices—in particular in the field of laws and regulations. In modifying their national laws and regulations states do appear to take into account what they have learned from discussions with partner authorities in other countries (a process that could be called the establishment of international ‘best practice’).

Within each of the participating states the national export control bodies will not have the authority to modify national laws or procedures unilaterally. At a minimum the export control authorities will have to discuss proposed changes (that have been informed by information learned from other regime partners) horizontally across government with other interested parties. If a change in the law is required, it will be necessary to discuss the implications of the proposed changes with the national legislative assembly. The export control authority is also likely to have to discuss the implications of the proposed changes outside government—with exporters whose activities may be affected. Finally, although in fewer cases, there may be a discussion of the implications of proposed changes with other interested parties in what is often called ‘civil society’.

During the course of this internal debate over proposed changes the original proposal may be modified in important ways. The national export control authority will report these changes back to its partners in the regime or arrangement. Partners have an opportunity to offer their own comment on the manner in which the original proposal has been implemented. The views of partners could be fed back into the national debate in the state concerned.

This process of a continuous feedback loop between the regime or arrangement and the states that participate in it can lead to important changes over time. It is not a harmonized or centrally directed process, nor does it lead to rapid change.

Although the regimes do offer participating states a forum in which they can discuss events of relevance or concern, they are not adapted for crisis response. The pattern of regime meetings (often annual meetings supplemented with expert meetings on an ‘as needed’ basis) and the nature of the individual participants (specialists in export control) mean that the regimes are not likely to be ‘event-driven’. The regimes can develop instruments through which decisions taken elsewhere can be implemented more effectively.

### **The role of the United States**

The United States has the most highly developed export control system of any state. Moreover, it devotes far more human, financial and technical resources to implementing its export controls than any other state. This level of attention reflects the important position of non-proliferation and international security within the US Government—which in turn reflects the global and comprehensive scope of US foreign and security policy.

Given the high priority that the executive branch places on export control, it is likely that US administrations would have sought to develop international cooperation in this area in order to raise the overall effectiveness of US policies in this area. However, the US Congress has mandated in several laws that the government must attempt to develop multilateral cooperation as a condition of congressional consent for further development of US export control.

This conditionality reflects the concern in Congress that countries other than the USA apply less rigorous controls—to the extent that the sincerity of their commitment to export control has sometimes been questioned. Under these conditions the Congress has been sympathetic to the argument sometimes made by US exporters that they are discriminated against in international markets by the rigorous nature of US legislation. According to this argument, if other states do not apply equivalent standards to those of the United States, US companies could lose commercial opportunities in other markets while the US Government would fail to accomplish its policy objectives.

As policy and commercial arguments have pushed in the same direction, the USA has invested heavily both in assisting other states to reform their national export control systems and in the development of multilateral cooperation.

For other states, cooperation with the United States has also brought significant benefits of different kinds.

First, the USA has been prepared to provide advice and financial and technical assistance to states to help them implement policies that they would otherwise have had to implement alone. With the revolution in Europe after 1989, states in Central and Eastern Europe trying to make the transition from state socialism and a command economy to democratic and market systems faced the task of developing new export control systems from scratch.

Second, the US export control system applies not only to exports from the USA but also to the re-export of items by those states that import them. According to the United States Arms Export Control Act, written approval is required from the Office of Defense Trade Controls (within the State Department) before the authorized end-user of a defence article acquired from a US supplier can re-export or retransfer that article. As a result, a failure to provide US authorities with credible assurances that an effective national export control system is in place can lead to one of two consequences. Either the US authorities will deny permission for US exporters to sell items (including technology) into that particular market or the USA will try to implement its national controls on the territory of the state concerned. Under conditions where the USA is both the main source of many advanced technologies and a state with many effective instruments that can be applied bilaterally, cooperation in developing export controls may be seen as the most advantageous alternative.

Cooperation on export control is also likely to become an important element of discussions of armaments cooperation within the Euro-Atlantic area. These discussions are being stimulated by the growing cooperation between what were in the past predominantly national defence industries. At present the dis-

cussions are taking place within informal sub-groups of states.<sup>5</sup> The NATO Defence Capabilities Initiative and the European Union Common Security and Defence Policy together with the need for these two processes to accommodate one another will stimulate discussion of how to adapt export controls in ways that permit greater cross-border industrial cooperation.

### III. Arms control and export control: convergence or divergence?

The most important objective with regard to the relationship between arms control and export control is to ensure that they do not pull in different directions. As noted by Ambassador Sohlman, the arms control community and the export control community within the same state are often composed of different actors and different individuals who may not inform one another regularly about their respective activities. At the same time, as he also observes, there can often be common objectives behind the activities of both arms controllers and export controllers.

The idea of separate processes working towards common objectives is most easily achieved through a flexible and ad hoc process by which the communities can communicate effectively. Information can be exchanged without commitment or obligation on either side. This information can then inform the separate activities of the respective groups.

At present agreement on common objectives is easiest within the area of proliferation of NBC weapons. In this area the existing treaties and conventions establish norms that export control authorities can work towards implementing.

In other areas common objectives have proved more difficult to identify. In the area of conventional armaments the Wassenaar Arrangement (WA) has identified elements for objective analysis and advice concerning potentially destabilizing accumulations of conventional weapons.

In 1999 the WA began to discuss the ways in which these elements could be utilized more effectively in decision making, including the preparation of regional evaluations under the leadership of the Chairman of the General Working Group. These regional evaluations, which would incorporate the views and information provided by participating states as well as contributions from reliable public sources, would over time be combined into a more comprehensive global view. These documents are expected to permit a more focused discussion among participating states about global and regional arma-

<sup>5</sup> Although these informal discussions have already led to a legally binding agreement. On 27 July 2000, 6 European countries signed the Framework Agreement between the French Republic, the Federal Republic of Germany, the Italian Republic, the Kingdom of Spain, the Kingdom of Sweden and the United Kingdom of Great Britain and Northern Ireland Concerning Measures to Facilitate the Restructuring and Operation of the European Defence Industry. The document is available at URL <<http://projects.sipri.se/expcon/loi/indrest01.htm>>.



ment dynamics that should in turn inform their export control policies and procedures.

In other areas—such as developing a more common approach to the application of export controls to achieve human rights policies—agreement on common objectives is some way off. In these areas approaches to export control cannot be isolated from the wider and as yet unresolved debate between states about the limits to intervention in internal affairs.

The differences between arms control and export control have sometimes led analysts to advance them as alternatives rather than complementary processes and to raise the question whether both can or should coexist over the longer term. It is sometimes argued that as arms control expands, export control should logically contract—for example, it has been argued that full implementation of the CWC and the BTWC would eliminate the need for the Australia Group, while universal participation in the NPT would eliminate the need for the Nuclear Suppliers Group.

While this may be argued from a theoretical standpoint, the conditions under which it could be tested are far from being satisfied at present. Moreover, although there are significant barriers to integrating arms control and export control processes in this way, there may be good arguments for never seeking such integration.

The differences and, on occasion, tensions that exist between the two processes can be helpful in resolving problems. The tendency for arms control discussions to seek general answers to problems rather than addressing themselves to specific cases can provide a valuable framework for export controllers as they seek to define common objectives. The tendency for export control discussions to address very specific cases to determine whether or not a particular export should be authorized can lead to exchanges of information and views that can be valuable in developing and supplementing the arms control discussion.

To conclude, the arms control and export control communities each have a large agenda of issues that need to be addressed and a long list of problems that need to be solved. It is probably best that these activities do not try to add further complexities by attempting a structural integration between departments or processes.



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## Part IV

# Compliance with arms control commitments

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## 20. Arms control in a world of cheating: transparency and non-compliance in the post-cold war era

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*Steven E. Miller*

### I. Introduction

Cheating is commonplace in human affairs, and the possibility of cheating is ever-present in many human interactions. To these unpleasant but inescapable realities must be added the fact that information about the behaviour of others will sometimes (perhaps usually) be imperfect or inadequate: cheating may be undetected or, worse, undetectable. There is, furthermore, often an irreducible element of uncertainty about whether cheating is taking place: how can one be absolutely sure that it is not? Suspicious minds will always wonder about what is not known, about the invisible cheating that might be taking place. The spectre of cheating casts an enormous shadow across almost all domains of social interaction.

How, then, can states reach international agreements, especially in areas such as arms control that involve core security interests? What is the value of such agreements if compliance is not or cannot be assured? How can states protect themselves against the possibility of cheating on international agreements? In the context of arms control, how and why do states deal with the risk that cheating by the other party may adversely affect, and possibly even jeopardize, their national security? To ask such questions is to identify the centrality of compliance as an issue in international negotiations and in international treaty regimes.

This problem arises in particularly acute form in the context of arms control negotiations and agreements for at least three reasons. First, arms control is an instrument of national security policy. It is employed to help shape and regulate the military environment. States are very sensitive to the impact of any agreement on their security situation and often engage in agonizing internal debates trying to resolve whether a given set of terms is compatible with their security interests. Not only can cheating, or the prospect of cheating, or even the expectation of cheating, tip the balance in such deliberations, but (as noted) non-compliance by others can lead to unfavourable (and in the worst case, disastrous) shifts in the military balance. The risks associated with cheating figure particularly prominently in the arms control context.

Second, many of the activities and items that might be regulated in arms control agreements are easily hidden. Militarily relevant research and development can take place in any laboratory. Most weapons are small enough to be

hidden in many buildings, caves or underground facilities. Nuclear weapons can be made small enough that they are portable even by a single human being. Worrying quantities of weapon-usable fissile material for nuclear weapons can be (and have been) transported in luggage aboard commercial airline flights. Even intercontinental ballistic missiles (ICBMs), although large, could be covertly stored in big warehouses such as might be found in many major industrial facilities (and in fact some US arms control critics have alleged that the Soviet Union was doing exactly that). Indeed, as demonstrated by the discoveries after the 1991 Persian Gulf War about Iraq's pursuit of weapons of mass destruction, a determined cheater can keep even a considerable military programme out of view. Cheaters will, of course, always run some risk of detection, but the reality is that those with the intention to deceive will have considerable ability to engage in duplicitous behaviour. As was suggested some four decades ago, it is easier to hide than to find.<sup>1</sup> This is a core dilemma for arms control verification.

Third, arms control, almost by definition, deals with sensitive military matters. In military affairs, secrecy is the norm—especially in the context of hostile relationships. Key capabilities and important deployments may be hidden from view. Any technology that might confer advantage is carefully protected from scrutiny. It is commonly thought unwise to be too free with information about numbers of forces and location of deployments (although the dissemination of misleading information may be regarded as useful). In fact, excessive openness with military information can be regarded not simply as undesirable, but as dangerous. For one thing, the spread of military 'secrets' may assist an opponent in strengthening its own forces or neutralizing one's own capabilities. For another, information may reveal or create military vulnerabilities that a rival might exploit. Any time that force survivability depends partly or wholly on deception, information becomes the great enemy of safety. In short, keeping the secrets is typically regarded as an essential component of national security.

Obviously, this creates a collision between the need for information required to verify compliance with an agreement and the wish to keep information hidden for the sake of national security. This collision is not easily avoided and not easily overcome. Indeed, in the abstract, one could construct an argument that states in a cheating world should not, and should not be able to, successfully negotiate arms control agreements. Given that the difficulties in verifying compliance can be great and the national security consequences of cheating could be severe, it would not be surprising if states seldom employed the instrument of arms control.

In fact, however, we know that there exists a profusion of international agreements, including numerous arms control treaties. Hence, although the problem of cheating is an impediment in the pursuit of arms control, obviously

<sup>1</sup> Katz, A. H., 'Hiders and finders: an approach to inspection and evasion technology', ed. E. W. Lefever, *Arms and Arms Control* (Praeger: New York, 1962), pp. 199–207.

it has not been an insuperable barrier, even during the dark days of the cold war. Why is this the case? How does one explain this somewhat puzzling outcome? To what extent does the end of the cold war and the attendant reduction in hostility at the core of the international system ease the problem of cheating in arms control? Is more arms control, or more ambitious arms control, now possible?

In what follows, I will endeavour to sketch answers to these questions. I will first try to offer an explanation of how, in general, governments have coped with the problem of cheating as it bears on arms control. I will then turn to an examination of the impact that the end of the cold war has had on these considerations. I suggest that, in broad terms, a framework for dealing with arms control verification issues was developed in the second half of the 20th century. This framework did not eliminate all risk, calm every doubter, answer every uncertainty or preclude all criticism, but it was sufficient to facilitate the unprecedented exploitation of the instrument of arms control in the decades after World War II. Arms control became an acceptable and commonly used, if often controversial, instrument of policy once a minimally sufficient verification framework was within reach. Quite a lot was possible in arms control—more than might have been expected—within the context of this framework. On the other hand, while the end of the cold war may have eased the verification burden in some contexts, in general it does not seem to have fundamentally recast the verification issue.

## II. Will cheating happen? (or, the propensity to comply)

Yes, cheating might happen, but will it happen? Is it likely to happen? Statesmen must assess the likelihood that the behaviour of signatories to a treaty will conform to the terms of the treaty. A presumption of non-compliance would seem likely to diminish the incentive to negotiate and to accept international agreements.

In international diplomacy, however, the opposite presumption generally prevails. As Abram Chayes and Antonia Chayes put it:

Foreign policy practitioners operate on the assumption of a general propensity of states to comply with international obligations. Foreign ministers, diplomats, and government leaders devote enormous time and energy to preparing, drafting, negotiating, and monitoring treaty obligations. It is not conceivable that they could do so except on the assumption that entering into a treaty commitment ought to and does limit their own freedom of action, and in the expectation that the other parties to the agreement will feel similarly constrained.<sup>2</sup>

<sup>2</sup> From the important and thoughtful book Chayes, A. and Chayes, A., *The New Sovereignty: Compliance with International Regulatory Agreements* (Harvard University Press: Cambridge, Mass., 1995), p. 3. I have found this volume particularly stimulating in thinking through the problems associated with compliance issues in international agreements.

Why might this be the case? Part of the logic rests on the proposition that states would not enter into an arrangement that was not compatible with their self-defined interests. If a state judges an agreement to be in its interest, however, then conforming to its terms should not be burdensome and there may be little incentive to jeopardize the treaty by cheating. Signing and ratifying a treaty involve the voluntary assumption of obligations. Furthermore, such obligations are almost universally understood to be legally binding—that is, requiring obedience—and these self-selected, legally binding commitments become embedded in national bureaucracies whose normal disposition is to comply with the rules.<sup>3</sup> Moreover, most participants in treaty regimes are probably well-intentioned, as evidenced by the fact that, in most treaty contexts, instances of non-compliance have been exceptional rather than widespread or commonplace.

Those who do not accept this logic, whether in general or in connection with a particular arms control regime, come to much more pessimistic conclusions about the value of negotiations and treaties and about the likelihood of compliance. In the Soviet–US context, for example, there was a school of thought that believed that cheating was an inherent part of Soviet strategic and diplomatic culture. Colin Gray has written that ‘a cultural proclivity to try to deceive is very much the Russian way in statecraft. Cheating for advantage or simply for convenience is probably inalienably, though certainly far from uniquely, Russian. . . . Moscow will cheat in matters small as well as great’.<sup>4</sup> Those who hold such views about potential negotiating partners naturally harbour enormous doubts about the effectiveness of treaties in restraining the behaviour of the other side and advocate that extremely high standards of verification be met. More fundamentally, a presumption of non-compliance—that is, the premise that the other party or parties will cheat—undermines the political and substantive case for pursuing arms control. As one critical analysis of Soviet–US arms control put it, accepting that negotiated agreements would have little or no effect on the Soviet pursuit of unilateral advantage ‘would make arms control impossible’.<sup>5</sup>

While dissenters rage at the folly of pursuing arms control in a world of cheating, governments nevertheless appear to proceed with arms control diplomacy based in part on acceptance of the premise that there exists among states in international affairs a ‘propensity to comply’. This helps to explain why governments pursue international treaties despite the risk of cheating, but this is only part of the answer; this alone, surely, would not be enough to permit arms control, not least because there will be loud doubters in most

<sup>3</sup> I have summarized very briefly here an argument more fully developed in Chayes and Chayes (note 2), pp. 3–9.

<sup>4</sup> Gray, C. S., *House of Cards: Why Arms Control Must Fail* (Cornell University Press: Ithaca, N.Y., 1992), p. 169. Gray also rejects the general argument for assuming compliance. He writes: ‘The basic premise of modern arms control, that the self-interest of the high contracting parties will render treaties self-enforcing, has been shown by events to be incorrect’, p. 167.

<sup>5</sup> Wallop, M. and Codevilla, A., *The Arms Control Delusion: How Twenty-Five Years of Arms Control has made the World Less Safe* (ICS Press: San Francisco, Calif., 1987), p. 40.



domestic contexts who will insist that compliance must be demonstrated if a treaty is to be acceptable. This is why most treaties are accompanied by some sort of verification scheme and why verification has been one of the central preoccupations in the conduct of arms control.

### III. Can cheating be detected? (or, systems of verification)

In order to assure themselves that other parties to a treaty are observing its terms, states develop or negotiate mechanisms for verifying compliance. In broad terms, this involves the creation of some arrangement that provides enough information about the behaviour of signatories to a treaty that it is possible to judge whether or not they are acting within its restrictions. Some arms control sceptics doubt whether satisfactory arrangements are possible to achieve. A former Director of the US Arms Control and Disarmament Agency, Kenneth Adelman, writes, for example, 'Verification simply cannot be assured with much confidence'.<sup>6</sup> Although verification absolutists dispute that adequate arrangements are feasible, governments often do judge (sometimes with angst) that available arrangements are acceptable.

The process of verification involves three stages.<sup>7</sup> First is the accumulation of information about the activities of the other signatories. Second, this information must be assessed in relation to the regulations contained in the treaty. A judgement must be rendered about the compatibility of the observed behaviour with the content of the agreement. A third stage comes into play if a state concludes that others are not compliant with a treaty. This then raises difficult issues involving either adjudication of compliance disputes or enforcement of treaties. Each stage of the verification process is fraught with potential complications and limitations, which helps to account for the perennial controversies associated with verification. From the point of view of understanding how arms control became so much more prevalent in the latter half of the 20th century, however, it is really improvements in the ability to collect information that are the heart of the matter.

Arms control negotiations are often heavily shaped by a single large question: Will the information necessary to verify compliance be available? A related question often dominates the domestic debate about compliance: How much information is necessary to provide confidence that a treaty is being respected? Often there is no objective answer to such questions, which explains the recurrence of fierce debates about the verifiability of agreements. A common solution to this dilemma is to concentrate arms control on those items that are easily observed and counted; as was often said of strategic arms

<sup>6</sup> Adelman, K. L., 'Why verification is more difficult (and less important)', *International Security*, vol. 14, no. 4 (spring 1990), p. 141.

<sup>7</sup> On the verification process, see Schear, J. A., 'Verification, compliance, and arms control: the dynamics of domestic debate', eds. L. Eden and S. E. Miller, *Nuclear Arguments: Understanding the Strategic Nuclear Arms and Arms Control Debates* (Cornell University Press: Ithaca, N.Y., 1989), pp. 266–73. Also relevant is Kessler, J. C., *Verifying Nonproliferation Treaties: Obligation, Process, and Sovereignty* (National Defense University Press: Washington, DC, 1995), especially pp. 7–21.

control during the cold war, it limited not what was important but what was verifiable. Even then, there were allegations of Soviet cheating through various duplicitous means. On the other hand, it is very difficult to confidently verify limits on items or activities that are easily hidden or not easily counted.

There exist three basic sources of information for verifying compliance, each of them imperfect: remote sensors, inspections and exchanges of data. Of these, the most important in facilitating arms control verification has been the development of remote sensors, particularly (although not only) satellite reconnaissance capabilities.<sup>8</sup> Technological developments made it possible to peer deeply and comprehensively into the territory of other states without their cooperation. This provides an independent, nationally controlled source of information about the behaviour of others within their own borders. Obviously, this did not mean that one could know everything, nor did this preclude various kinds of cheating, but one could learn quite a lot and certain types of activities and inventories would (especially over time) be difficult to hide from the ubiquitous eye of the satellite. As the technologies developed, it became possible to detect nuclear explosions, monitor missile tests, observe large military construction projects, count certain kinds of military deployments, track the movement of military formations and equipment, intercept various types of communications, and in general monitor to a striking degree the characteristics and behaviour of the military forces of a rival.<sup>9</sup> In recent years, it has become openly evident that contemporary satellite reconnaissance capabilities can provide remarkably detailed portraits of equipment, facilities and deployments even in the remotest of locations.<sup>10</sup> States may not be confident that they know all that is relevant to verification, but those that possess satellite reconnaissance capabilities can be assured that they will possess substantial amounts of information about the military behaviour of other parties. This greatly increases the likelihood that cheating (especially cheating on a large scale) will be detected. This, in turn, makes it possible for a state to conclude that it can know enough to protect its fundamental interests in the context of an arms control treaty. As Walter Slocombe wrote, 'In terms of the danger of cheating, the standard for verification is not perfect information, but high con-

<sup>8</sup> Great detail is available in Tsipis, K., Hafemeister, D. W. and Janeway, P. (eds), *Arms Control Verification: The Technologies that Make it Possible* (Pergamon-Brassey's: Washington, DC, 1986). The title of this book suggests the general point being made here. On the origins of US technical reconnaissance capabilities, see Ziegler, C. A. and Jacobson, D., *Spying Without Spies: Origins of America's Secret Nuclear Surveillance System* (Praeger: Westport, Conn., 1995).

<sup>9</sup> See, e.g., Argo, H. V., 'Satellite verification of arms control agreements', eds Tsipis, Hafemeister and Janeway (note 8), pp. 290–308. Jeffrey Richelson has written a series of books on US military reconnaissance capabilities that provide extensive coverage of US space assets and their capabilities and implications. The most recent of these is *America's Space Sentinels: DSP Satellites and National Security* (University of Kansas Press: Lawrence, Kan., 1999). For a concise and highly relevant overview, see Richelson, J., 'Technical collection and arms control', ed. W. C. Potter, *Verification and Arms Control* (Lexington Books: Lexington, Mass., 1985), pp. 169–216.

<sup>10</sup> The capabilities of high-resolution imagery are suggested in Gupta, V., 'New satellite images for sale', *International Security*, vol. 20, no. 1 (summer 1995), pp. 94–125. Revealing use of such imagery is made by the Federation of American Scientists, which now routinely posts satellite photographs on its Internet site. Consult URL <<http://www.fas.org>>.

fidence that any . . . violation would be detected in time for us to react before any militarily significant advantages could be gained'.<sup>11</sup> Technologies that assist in meeting that standard greatly increase the feasibility of arms control. As one analysis concludes about the 1972 and 1979 Strategic Arms Limitation Treaties (SALT I Agreement and SALT II Treaty, respectively) that initiated the era of strategic arms control, 'That the two agreements were signed at all was largely the result of improvements in the capabilities of satellites on both sides'.<sup>12</sup> It is not mere chance that, in the latter part of the 20th century, the age of satellites and the age of arms control coincided.

Inspections represent a second potential source of information about behaviour in relation to arms control regimes. Inspections can be an enormous source of reassurance that international regulations are being observed. Indeed, when states are eager to reassure others of their compliant behaviour, they may expose themselves to a remarkable degree of outside inspection. In connection with the nuclear non-proliferation regime, for example, the International Atomic Energy Agency (IAEA) applies safeguards intended to ensure that civil nuclear power facilities are not being used illicitly for military purposes. A country like Japan, keen to display to the world the peaceful nature of its extensive nuclear power programme, allows its nuclear facilities to be subjected to continuous and intensive inspection. IAEA surveillance cameras are installed in sensitive facilities, IAEA personnel live at some major installations and IAEA inspectors routinely can be found in the control rooms of important plants. Such a high degree of transparency is not typically offered by most parties to treaties and is not common in most treaty regimes, but where it exists it promotes confidence that the limits in question are being observed.

Although they can be extremely useful, the value of inspections is limited by several realities. First, under normal circumstances, they require the consent of the inspected party—that is, in the context of treaty negotiations, states must agree to arrangements that involve inspection. States are willing to accept inspection in many circumstances, but not always. Particularly in hostile relationships, states can be very uneasy about opening sensitive military facilities to scrutiny by their rival. Thus, until the last years of the cold war, the Soviet Union and the USA found it impossible to agree on a mutually acceptable scheme of reciprocal inspection. Hence, for most of the cold war, Soviet–US arms control verification had to take place without a contribution from inspections. Second, even unfettered rights of inspection do not guarantee that illicit activity will be discovered. When reasonable assumptions are made about practical numbers of inspections and inspectors, and when realistic budget constraints are taken into account, it becomes obvious that on-site inspection is not the complete answer to the problem of verifying the behaviour of large states. There is no way that vast tracts of territory can be uniformly sub-

<sup>11</sup> Slocombe, W., 'Verification and negotiation', ed. S. E. Miller, *The Nuclear Weapons Freeze and Arms Control* (Ballinger Publishing: Cambridge, Mass., 1984), p. 81.

<sup>12</sup> Lindgren, D. T., *Trust But Verify: Imagery Analysis in the Cold War* (Naval Institute Press: Annapolis, Md., 2000), p. 134.

jected to inspection. In the absence of information pointing to particular suspect sites, inspection can amount to the proverbial hunt for the needle in the haystack. Third, states may even refuse inspections to which they have previously agreed, whether for legitimate or for illegitimate reasons. It cannot be assumed that a devious government intent on cheating will allow its suspicious behaviour to be scrutinized.

Within these limits, inspections represent an augmentation of the information-gathering capacities of states seeking to verify compliance with treaty regimes.

A third potential source of information is exchanges of data between the participants in a treaty (or, in some instances, even the unilateral provision of information about or explanation of military activities<sup>13</sup>). Many treaties or regimes require such exchanges. Obviously, information provided by another party—possibly a suspected cheater—is not going to be sufficient to verify compliance. In a sense, this information must itself be verified. Nevertheless, such exchanges can serve useful purposes. They can provide a baseline against which future behaviour can be measured. They can provide a point of comparison against which independently collected data can be compared. When information provided by another party is judged to be truthful, this can enhance confidence that its behaviour is compliant. Conversely, when such data appear to be patently false, this can raise alarms and fuel doubt about the intentions of the party in question.

To these three general sources of information must be added a fourth: intelligence operations and espionage. This is a subject about which public knowledge is inevitably murky, but it is well known that states spy on one another, especially when they are rivals or enemies. The information gleaned from spying is unpredictable, may be unreliable, and is probably incomplete most of the time, but it seems plausible that by this means states will at least occasionally obtain information that augments that provided by other sources. This can further refine a state's ability to monitor compliance. Indeed, in general, states will wish to obtain as much information as possible about the military capabilities and activities of their rivals whether or not there exists an arms control treaty to be verified. As Slocombe has written, 'Verification is a special case of general strategic intelligence. . . . The information we need for arms control verification is the same information we need for general strategic intelligence purposes'.<sup>14</sup>

While none of the available instruments can ensure perfect verification, it is evident from the historical record that states and statesmen have judged that there is an acceptable likelihood that cheating will be detected; it is widely accepted that, in some combination, technical monitoring, inspection, data exchange and espionage provide adequate protection against the risk of unde-

<sup>13</sup> China's recent publication of a Defence White Paper, e.g., has been hailed as a step towards greater transparency. Shambaugh, D., 'Here is a welcome shift by China toward military transparency', *International Herald Tribune*, 24 Oct. 2000.

<sup>14</sup> Slocombe (note 11), p. 80.

tected cheating. This conclusion has been decisively important in permitting the practice of arms control as witnessed in the closing decades of the 20th century.<sup>15</sup>

#### IV. Is all cheating the same? (or, varieties of non-compliance)

If states were equally sensitive to all cheating, then even a small risk of the successful duplicity of other parties would probably be sufficient to preclude or significantly inhibit arms control. In fact, the practice of arms control seems to have been governed, implicitly if not explicitly, by a more nuanced view of cheating. Non-compliance can take many forms, and some forms are much more disturbing than others.

Cheating can vary along two dimensions. First, what sort of cheating is taking place?

There are at least four possible types of cheating. The worst is purposeful deceit, when a state intentionally seeks to covertly violate an agreement in pursuit of unilateral advantage. Iraq, for example, was intentionally and secretly violating its international obligations under the 1968 Non-Proliferation Treaty (NPT) to facilitate its programme to acquire nuclear weapons.

The second category might be described as inadvertent cheating. This can arise when military bureaucracies pursue their plans with little input from those charged with responsibility for arms control or when those making national security policy single-mindedly focus on the solution to a particular problem without paying heed to the arms control implications of their choices. Modern governments are large, complex institutions in which the right hand sometimes do not know what the left hand is doing. The result can be unintentional non-compliance. Apparently harmless steps, taken for sensible reasons, can transgress arms control regulations. Thus, environmental shelters installed at ICBM silos to protect workers from winter weather turned out to violate strategic arms control provisions that prohibited any interference with satellite surveillance of ICBM silos. In some cases, in short, there may be no intention to cheat but non-compliance may result nevertheless.

A third category of alleged cheating can derive from disputes over the interpretation of agreements. What one signatory regards as compatible with an agreement might be regarded by the other parties as a violation. This can result from vague or ambiguous passages in treaties or from divergences between the spirit and the letter of an agreement. Sometimes one side can discover loopholes in treaties. Sometimes there can be a wilful effort to discover (or assert) ambiguities by parties that wish to move forward with some project but not to explicitly violate an agreement (as was true of the Clinton Adminis-

<sup>15</sup> As Robert Bowie wrote 40 years ago, 'If . . . 100 percent certainty were required in the inspection system, virtually no arms control would be feasible'. Bowie, R. R., 'Basic requirements of arms control', ed. D. G. Brennan, *Arms Control, Disarmament, and National Security* (George Braziller: New York, 1961), p. 49.

tration as it sought to reinterpret the 1972 Anti-Ballistic Missile Treaty in a way the would permit construction to begin on an ABM radar that collided with treaty provisions).

Fourth, there can be what might be termed openly proclaimed non-compliance. This refers to situations in which the non-compliant party declares its failure to comply with treaty provisions. In such instances there is no intention to deceive nor even necessarily a desire to abrogate the treaty in question. The cause of such behaviour may be a change in circumstances or the emergence of some new problem. In the early 1990s, for example, Russia felt unable to comply with the regional flank limits contained in the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty) because there existed a series of conflicts on its southern periphery. Moscow had no particular desire to destroy the treaty or to deceive anyone, but instead initiated a series of discussions with the other signatories about modifying or temporarily suspending the flank limits.

With regard to the second dimension, how significant is the cheating that is taking place or might take place? Cheating can be large- or small-scale, major or minor, strategically significant or strategically insignificant. Cheating can breach core provisions or undermine the central purposes of a treaty or it can represent so-called technical violations that are marginal to the essential aims of an agreement. Accordingly, governments engaged in arms control negotiations or arms control verification may be sensitive not only to whether cheating can be detected and whether cheating is occurring, but also to the importance of such cheating. Assessing the importance of potential undetected breaches of an agreement can be decisively important in calculations about 'How little verification confidence is too little?'<sup>16</sup> During the cold war, for example, the military significance of instances of alleged Soviet non-compliance was seriously debated and, while some argued that any case of cheating was sufficient to call a treaty into question, others took the view that minor instances of non-compliance need not be particularly consequential.<sup>17</sup> Similarly, many advocates of strategic arms control believed that, with Soviet and US nuclear force levels so high, it would take cheating on a very large scale to make a strategic impact; such extensive cheating would almost surely be detected. Cheating on a scale that is likely to remain undetected would be strategically unimportant, and hence would not upset the military balance even if it occurred. For arms controllers, the possibility of insignificant cheating was a risk worth running.

In sum, not every instance of non-compliance jeopardizes the process of arms control or the viability of a treaty regime. When cheating reflects accident rather than intention, the offending behaviour can be reversed or altered.

<sup>16</sup> Dunn, L. A., 'Arms control verification: living with uncertainty', *International Security*, vol. 14, no. 4 (spring 1990), p. 172.

<sup>17</sup> See, e.g., Guertner, L. G., 'The politics of Soviet arms control compliance: lessons of the Reagan Administration', eds J. Tower, J. Brown and W. Cheek, *Verification: The Key to Arms Control in the 1990s* (Brassey's US: Washington, DC, 1992), especially pp. 51–53.

When disputes over interpretation arise, discussion and mutually agreed clarification can remedy the situation; indeed, some treaties create or require dispute-resolution mechanisms.<sup>18</sup> When a state openly announces that it finds it necessary to breach a treaty or alternatively that it is unable to comply with a treaty (for financial or other reasons), negotiations to modify, delay or temporarily suspend the regulations may be a mutually acceptable solution. It is really only intentional deceit for the purpose of seeking unilateral advantage that represents the greatest challenge both to the treaty regime and, more importantly, to the security and position of other signatories. Even then, not all cheating is militarily significant. Governments often seem willing to accept that minor cheating will be tolerable even if it occurs.

To verification absolutists, these refinements were never compelling; to accept nuances about non-compliance for this group misses the point that any cheating undermines the very basis for accepting agreements.<sup>19</sup> For a wider group, however, this more nuanced approach to the problem of cheating reduced it to manageable or acceptable proportions and thereby facilitated the utilization of arms control in national policy.

## V. Does cheating matter? (or, living with non-compliance)

At first glance, it seems odd even to ask the question. Of course cheating matters. This is why treaties must contain verification measures. This is why compliance is so often a controversial issue. This is why the prospect of cheating looms so large in treaty negotiations.

The reality, however, turns out to be more complicated. Although in principle, and often in practice, there must exist some reasonable system for detecting cheating if a treaty is to be viable, in fact states are occasionally willing to sign treaties for which no meaningful system of verification has been devised or to accept a high likelihood that cheating cannot be detected. Many believe, for example, that the 1972 Biological and Toxin Weapons Convention (BTWC) is unverifiable; developing biological weapons is an easily hidden activity that could take place in countless locations, and even with observation this activity could be difficult to distinguish from ordinary biological research. Furthermore, the convention does not include an impressive verification scheme. As one assessment puts it, 'The verification provisions of the Convention are visibly feeble'.<sup>20</sup> Nevertheless, the BTWC has been signed and ratified by numerous states. Similarly, although the 1993 Chemical Weapons Convention (CWC) does include arduously developed verification provisions, many still doubt that it is verifiable and its verification system has yet to demonstrate

<sup>18</sup> Duffy, V., 'Improving arms control compliance dispute resolution', eds Tower, Brown and Cheek (note 17), pp. 139–53.

<sup>19</sup> On the contending schools of thought and their views, see Gallagher, N. W., *The Politics of Verification* (Johns Hopkins University Press: Baltimore, Md., 1999), pp. 3–14.

<sup>20</sup> Karkoszka, A., 'The convention on biological weapons', ed. S. Sur, *Verification of Current Disarmament and Arms Limitation Agreements: Ways, Means and Practices* (UNIDIR: Geneva, 1991), p. 211.

its effectiveness—yet, again, the treaty has attracted many signatories. Clearly, in the actual practice of arms control, concern about verifiability is not the only factor in play when governments make judgements about acceding to a treaty. If high confidence in effective verification were an absolute prerequisite for reaching, signing or ratifying treaties, there would be fewer arms control agreements.

A parallel point can be made about tolerance of non-compliance. Although in principle, and sometimes in practice, the discovery of cheating should have dire consequences for a treaty regime and for relations between the parties, in fact states are (perhaps surprisingly) often willing to tolerate or ignore instances of non-compliance. A classic example is found in the Reagan Administration, which issued sweeping formal allegations that the Soviet Union cheated in multiple ways on its strategic arms control commitments, on the one hand, but spent much of the 1980s negotiating new agreements (with success in the case of the 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles), on the other.<sup>21</sup> This contradiction dismayed some arms control critics. For example, Colin Gray complained bitterly (in a chapter entitled ‘Verification without compliance’) that ‘The Reagan Administration, which adopted an uncompromising rhetorical position on the necessity for compliance with treaties, was willing to negotiate and sign new agreements even while its negotiating partner still was found not to be in a state of grace on compliance with old agreements’.<sup>22</sup> (Another critic drew an even wider conclusion, suggesting that democracies have a ‘seeming inability to act upon evidence of a violation’.<sup>23</sup>) With the Reagan Administration’s impeccably hawkish credentials, one cannot attribute this result to the blind eye often assumed of ardent arms controllers. Instead, it appears that even a strong and publicly articulated belief that one’s negotiating partner is cheating is not sufficient to preclude arms control even when hard-liners are dominant in government. What this suggests is that even tough-minded governments can find arms control, or particular arms control agreements, to be compatible with their interests even when cheating is occurring (or is believed to be occurring).

Why might governments be prepared to accept inadequate verification or to live with cheating? The main answer, in broad terms, must be that governments can come to the conclusion that they are better off with an agreement than without it, even if compliance is uncertain or a certain amount of cheating is occurring. Naturally, verification purists will find this suggestion objectionable, but governments do regularly seem to arrive at that judgement or at least behave as if they had done so.

Governments might justify this seemingly paradoxical conclusion on a number of grounds.

<sup>21</sup> An inventory of the major allegations against the USSR can be found in Guertner (note 17).

<sup>22</sup> Gray (note 4), p. 165.

<sup>23</sup> Berkowitz, B., *Calculated Risks: A Century of Arms Control, Why it has Failed, and How it Can be Made to Work* (Simon & Schuster: New York, 1987), p. 84.



1. Minor or militarily insignificant cheating probably does not undermine the essential purpose of a treaty. If high value is attached to that purpose, then the treaty can be regarded as worthwhile despite poor verification or instances of cheating. One could argue, for example, that the US Government found it preferable to squabble with the Soviet Union over non-compliance than to run an unconstrained nuclear arms race. Hence, the strategic arms control regime survived some clear instances of Soviet non-compliance as well as countless additional allegations of Soviet cheating.

2. An agreement can lay the international legal foundation for objecting to any prohibited behaviour that is detected, even if there is a good chance that cheating can remain undetected. If the CWC or the BTWC did not exist, then it would be perfectly legal to acquire and use such weapons and there would be no legitimate basis for international reaction against their acquisition or use. Similarly, although many are now critical of the NPT regime as a consequence of its evident imperfections, there would have been no grounds for international interference in the North Korean nuclear weapon programme if it had not been not a signatory of the NPT.

3. The verification provisions associated with a treaty regime—inspections, data exchanges, monitoring of technology flows, and so on—can increase the likelihood of obtaining information about undesirable developments even if verification is imperfect. Thus, creating an agreement not only renders the behaviour illegal but increases one's awareness of potential illegal action on the part of others. In the absence of an agreement, not only is the behaviour legally acceptable but the outside world will have fewer ways of knowing anything about it.

4. Even agreements that have weak verification can have a deterrent effect on potential cheaters. While compliant parties will always worry about the cheating that might remain undetected, the potential cheater must worry about the risk of detection. The more extensive or grand the ambitions of a possible violator, the greater the likelihood that he will be caught.

5. An agreement may be serving purposes that do not require high-confidence verification or full compliance. This would be true in instances where arms control was serving various diplomatic or political purposes. For the USA, for example, the pursuit of Soviet–US arms control in various guises was helpful in managing the NATO alliance and even in facilitating occasional weapon deployments within NATO. For the Reagan Administration, arms negotiations with Moscow, despite Soviet cheating, were very helpful in coping with the domestic political challenge posed to its policies by the nuclear freeze movement. The achievement of such purposes was not highly sensitive to the details of verification and compliance associated with a given negotiation or treaty.

None of this suggests that all cheating is acceptable. Clearly there will be limits beyond which these arguments do not hold. Without a doubt, verifica-

tion problems and compliance crises undermine the support for and the political viability of arms control agreements. However, it is striking, and undoubtedly important in explaining the prevalence of arms control in a world of cheating, that governments can and do find reasons to conclude that the benefits of agreements outweigh a high risk of, or even the reality of, cheating. Richard Perle has written that ‘treaty constraints that would be desirable if honoured are not desirable where there can be no assurance of compliance. Treaties that cannot be verified are in general a bad idea’.<sup>24</sup> It is easy to see the force of this logic. However, in the less black-and-white world in which arms control diplomacy actually takes place, governments often disagree (including the government in which Perle himself served).

## VI. The end of the cold war and the limits of verification

Even when the world was riven into hostile armed camps, it was possible to develop a framework for verification that permitted arms control to function and occasionally even to flourish. As sketched above, this framework included at least four major components: (a) a willingness on the part of governments to operate on the assumption that state behaviour is governed by a ‘propensity to comply’; (b) a growing ability to gather the information necessary to monitor behaviour and verify compliance through exploitation of modern technology and the expansion of inspection; (c) a willingness (de facto if not openly) to differentiate between significant and insignificant cheating; and (d) acceptance of arms control as an instrument whose utility is not wholly dependent on high-confidence verification and full compliance. The most important and indispensable of these is probably the increase in information-gathering capacities, but since perfect verification is unattainable and the risk of cheating persists, this factor alone cannot explain the upsurge in arms control witnessed in recent decades. It particularly cannot explain the existence of treaties that lack high-confidence verification or that endure despite cheating. It is the combination of these factors that seems to account for the rise of arms control in the cold war and its immediate aftermath.

With the end of the cold war and the rise of a world no longer structured around bipolar rivalry, it seemed plausible that a more cooperative and transparent world might emerge. The secrecy, the deception, the dissembling that marked the cold war were no longer necessary or even appropriate to the new age. If a more transparent world were to become reality, this should ease the problem of verification in arms control. As Chayes and Chayes write, ‘One of the most important functions of transparency . . . is to generate information that helps assess party performance and overall treaty effectiveness’.<sup>25</sup> Moreover, greater transparency in the context of greater cooperation might allow

<sup>24</sup> See chapter 6, section IV, by Richard Perle, in this volume.

<sup>25</sup> Chayes, A. and Chayes, A., ‘Regime architecture: elements and principles’, ed. J. E. Nolan, *Global Engagement: Cooperation and Security in the 21st Century* (Brookings Institution Press: Washington, DC, 1994), p. 90.

regime monitoring to proceed in a substantially different fashion. John Steinbruner, for example, has suggested that it may be possible (and possibly necessary) to shift from adversarial verification of treaties to collaborative oversight of regimes in which key parties share a common interest.<sup>26</sup> This would represent a conceptually different way of managing regulatory regimes. A world of wider possibilities for arms control and transparency still seems within our vision.

In fact, the past decade did witness some breakthroughs, especially in the Russian–US context. Extensive mutual inspection was implemented as a by-product of several different treaties. Formerly secret sites were opened to outside visitors. Delegations at the highest levels of the respective defence establishments met to exchange views and information. Perhaps most dramatically, in connection with the US Cooperative Threat Reduction programme the Russian nuclear complex was opened up to US personnel, far from completely, to be sure, but to unprecedented and once unthinkable degrees.

Despite these significant developments, on the whole the anticipated revolution in transparency and verification has not taken place. Nor, indeed, has a great flowering of arms control occurred. Instead, treaties have languished, negotiations have stalled, regimes have eroded, the adequacy of verification and compliance mechanisms has been called into question in several treaty contexts, and serious problems with non-compliance have bedevilled the NPT and the BTWC. Arms control remains on familiar terrain and verification remains a serious and difficult business. What has happened? Why has this been the case?

Part of the answer would seem to be that the end of the cold war has produced some enlargement of the room for action within the verification framework described above but it has not fundamentally transformed that framework. There may now be more Americans prepared to apply the assumption of compliance to Moscow. In certain treaty contexts, more inspection has become feasible. Perhaps a wider spectrum of misbehaviour now can be regarded as militarily inconsequential, but this has obviously not opened the door to more extensive arms control that is more easily achieved and more confidently monitored.

Another part of the answer is that the experiences of the 1990s have revealed problems and limits as well as opportunities. Several developments in particular stand out for the discouraging impact they have had on the hopes for a new world of verification.

1. Greater transparency has proved difficult to achieve even in more cooperative circumstances. The key illustration here is the failure of the Russian–US transparency talks of the mid-1990s. Despite numerous high-level assertions that greater transparency is important, desirable and necessary to facil-

<sup>26</sup> Steinbruner, J. D., *Principles of Global Security* (Brookings Institution Press: Washington, DC, 2000), pp. 192–93.

itate the cooperative management of deep cuts and other measures, the formal transparency negotiations, in the words of one careful assessment, 'have produced virtually nothing'.<sup>27</sup> Even before Russian–US relations began to sour in the second half of the 1990s, transparency remained a sensitive and disappointing item on the Russian–US agenda. The US negotiator in the transparency discussions, James Goodby, has written that these talks always had a 'pre-Gorbachev' feeling to them, and he observes that the key Russian ministries were never enthusiastic about moving towards greater transparency.<sup>28</sup> The USA still harbours the aspiration to negotiate greater transparency across a number of domains of nuclear activity, but the talks have been stagnant for some five years, during which time Russian–US relations have deteriorated significantly. Prospects are undoubtedly worse now than when the talks began.<sup>29</sup>

2. The end of the cold war may have altered relations with Russia but it did not eliminate other difficult or hostile parties—such as China, Iraq or North Korea. In multilateral arms control contexts, it is necessary to contend with such parties. There is little indication in the record of the past decade that the arms control and verification challenges posed by such states have become less serious. The USA, to cite just one example, remains extremely sensitive about transparency in its relations with China, and even routine visits to US installations by visiting delegations from Beijing become a source of political controversy.<sup>30</sup>

3. In recent years, US attitudes towards transparency have been heavily coloured by the protracted and politicized reaction to allegations that China had stolen design information about nuclear weapons from US nuclear laboratories. This spying scandal has produced a backlash in the USA that has resulted in a significant tightening of secrecy.<sup>31</sup> Fear of further espionage has led the US Government (and particularly the Congress) to crack down on openness and to discourage international cooperation that involves outside access to sensitive US facilities.<sup>32</sup> This development has already had notable inhibiting effects on collaborative programmes with China and Russia and makes it difficult to envision how a more transparent system can be achieved.

<sup>27</sup> Bunn, M., 'The next wave: urgently needed steps to control warheads and fissile material', Managing the Atom Project and the Carnegie Endowment Non-Proliferation Project, Washington, DC and Cambridge, Mass., Apr. 2000, p. 46, available at URL <<http://ksgnotes1.harvard.edu/BCSIA/Library.nsf/atom>>. Bunn provides an excellent, concise overview of what he dubs 'the transparency that never happened'.

<sup>28</sup> Goodby, J. E., 'Transparency and irreversibility in nuclear warhead dismantlement', ed. H. Feiveson, *The Nuclear Turning Point: A Blueprint for Deep Cuts and De-Alerting of Nuclear Weapons* (Brookings Institution Press: Washington, DC, 1999), pp. 181, 187.

<sup>29</sup> For an overview of official US perceptions and objectives, see US Department of Energy, Office of Nonproliferation and National Security, *Warhead and Fissile Material Transparency Program: Strategic Plan* (US Department of Energy: Washington, DC, May 1999).

<sup>30</sup> See, e.g., Gertz, B., 'Chinese to tour sensitive facilities', *Washington Times*, 24 Aug. 2000, p. 1; and Gaffney, F. J., 'Knowledge on China that needs airing', *Washington Times*, 31 Oct. 2000.

<sup>31</sup> For an excellent discussion, see Holdren, J. and Weeks, J., 'Energy's secrets: finding the balance', *Bulletin of the Atomic Scientists*, vol. 56, no. 2 (Mar./Apr. 2000), pp. 20–21, 76–79.

<sup>32</sup> See, e.g., Bonner, R., 'White House gets a bill to tighten official secrecy', *New York Times*, 31 Oct. 2000, p. 1.

Ironically, as memories of the cold war fade, the US political system seems to be growing more wary of openness and transparency. At a minimum, the secrecy backlash of the late 1990s indicates how fragile and reversible trends toward greater openness may be.

4. The protracted stalemate in nuclear arms control, which persisted throughout most of the 1990s and continues today, prevented any serious testing of where the new frontiers of transparency might lie and inhibited the political or intellectual exploration of which new or more ambitious arms control measures might be possible. As Jonathan Schell has written, many of the big questions about what sort of new security environment might be possible in the post-cold war era have been neither seriously asked nor compellingly answered.<sup>33</sup> With the halcyon days of the early post-cold war period long gone, one suspects that they may never be tackled.

5. The unprecedented intrusiveness of the United Nations Special Commission on Iraq (UNSCOM) exercise in Iraq demonstrated the value, but also the limits, of extensive inspection regimes. Much of importance was learned during the UNSCOM inspections, but Iraq was able to thwart and frustrate the UN inspectors for long periods of time. Without information from a key defector, much that was discovered in Iraq would have remained unfound. It remains possible, and perhaps even likely, that the full extent of Iraq's programmes for weapons of mass destruction was never completely exposed (although it was substantially revealed). It may be that inspection can be used much more regularly and extensively in the post-cold war era, but it is a limited instrument.

6. The severe compliance crises in the 1990s associated with North Korea and, especially, Iraq have called into question how reliable and effective arms control regimes can be over the long run. If, ultimately, the international community cannot summon the will to enforce agreements when significant cheating occurs, this is bound to undermine its value and effectiveness. Cheating that directly undermines the purpose of a treaty should not be acceptable.

In short, the experiences of the past decade suggest that we have not yet entered a dramatically new world in which greatly enhanced transparency opens up new vistas for arms control. Instead, the essentials of the cold war verification framework seem to endure, although in a new and still more hopeful political context. This is disappointing news to those who hoped that a more cooperative security order, built heavily around arms control, might be at hand. The more fundamental point, however, is that the verification framework that emerged in the late 20th century facilitated the emergence of arms control as a useful instrument of policy and permitted a role for arms control in international security that was unparalleled in history. There is ample room within that framework for further contributions from arms control.

<sup>33</sup> Schell, J., 'The folly of arms control', *Foreign Affairs*, vol. 79, no. 5 (Sep./Oct. 2000), p. 46.

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## 21. Compliance or non-compliance with arms control and disarmament

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### I. Introduction

By the end of the first decade after the end of the cold war, in the midst of regional tension and conflict—in Africa, Asia and Europe—a threat of considerable significance is looming, the pressure for proliferation of weapons of mass destruction (WMD).

The 1999 NATO Kosovo operation demonstrated the possibility of high-technology war-fighting at long distances without casualties for the technically superior side. In the same conflict on the ground, ethnic cleansing took place in a war against people, a sort of anti-people war. On the one side we can note how the Revolution in Military Affairs is emerging, with all its implications and capabilities, such as precision-guided munitions. New advances in technology are improving communications, command, control and intelligence, which makes it possible in both air and ground wars to hit targets with exactness, minimizing the collateral damage, especially avoiding massive killing of civilians. On the other side, in the real wars of today, we witness how the people, the civilians and their habitats become the target. In recent wars the civilian casualties have been many times larger than the military. Increasingly destructive means and methods of warfare are deployed. In wars aiming at maximum destruction, WMD tend to become attractive. With growing customer demand, the more important becomes supplier control.

Thus two major challenges are threatening the stability and status quo as regards worldwide efforts to prevent the proliferation of WMD: first, the increase of ethnically and racially based conflicts aiming at inflicting maximum casualties on the opponent; and second, the widening gap between the high-technology military capacity of the technically advanced countries and the standard and sometimes even rag-tag quality of the weapons and equipment of most developing countries. This gap constitutes a temptation for major developing countries to compensate for that difference by striving to acquire massively destructive weapons. With these challenges in mind there are now, therefore, compelling reasons to review the international complex of treaties and norms which have been agreed upon with the aim of eliminating existing WMD and preventing their proliferation and to examine the extent to which the system constituted by this legal framework serves its purpose.

Knowledge of the science and technology in areas such as nuclear, chemical and biological weapons has been widely disseminated over the past 10 years. Still, however, the fine points in engineering, chemistry and biology are diffi-

cult to master. The globalization of the world economy and technology also means a globalization of the threats against our collective security, as governments' control even of sensitive items is difficult to sustain. Like terrorism, epidemics and diseases, the proliferation of nuclear weapons and other WMD does not know any boundaries. With the weakening of national controls, the enlightened response to these threats must be cooperation between states as a part of dynamic internationalism.

The treaty framework relative to WMD combined with certain voluntary cooperative arrangements appear in normative terms to address the threats fairly well. The 1993 Chemical Weapons Convention (CWC) is a complete and comprehensive legislative system that includes arrangements for verification and monitoring as well as an organization to oversee implementation of and compliance with the provisions of the convention. The 1972 Biological and Toxin Weapons Convention (BTWC) contains all the necessary prohibitions (the prohibition on use is covered by the 1925 Geneva Protocol) but lacks provisions with regard to monitoring verification and institutional control mechanisms. A BTWC verification protocol is under negotiation but its completion still remains distant. The safeguards-regime support of the 1968 Non-Proliferation Treaty (NPT) has gone through a necessary overhaul and is now greatly improved but still does not correspond to a full monitoring and verification arrangement.

The fact that these and other treaties and norms are not always fully comprehensive is, however, not the major problem. It is rather that there are shortcomings with regard to implementation and compliance which tend to put these regimes under serious pressure.

## II. Chemical weapons

To start with the CWC, there is a disturbing trend of erosion of the implementation of the verification provisions of the convention. This has tended to diminish the effectiveness of the verification activities of the convention's Organisation for the Prohibition of Chemical Weapons (OPCW). The modifications of the rules for verification made by the decision-making body of the OPCW have upset the delicate balance, originally negotiated when the CWC was treated, between the rights of the OPCW inspectors and the rights of the inspected state, making it more difficult to detect non-compliance. Such approved modifications enable member states to review inspectors' notebooks and to confiscate and retain any piece of analytical equipment that the host-country officials believe has not been satisfactorily cleared of proprietary data unrelated to treaty compliance. These modifications make it possible for states parties to evade detection by embargoing evidence that could document their own non-compliance. Furthermore, of the two major states possessing chemical weapons, Russia appears to be far behind in implementing its obligations to eliminate its large stocks of chemical weapons and the USA remains in

‘technical violation’ of the CWC because of its failure to submit declarations of chemical industry sites and consequently to accept OPCW inspections of the sites.

A special case of non-compliance was Iraq’s use in the 1980s of chemical weapons against its own population (Halabja) and massively against Iran during the Iran–Iraq War. In this case it was a matter of a serious violation of the Geneva Protocol, prohibiting the use of biological and chemical weapons, which Iraq had signed and ratified. Hardly any state (Iran, obviously, and Sweden were the exceptions) reacted against this outright violation of the Geneva Protocol and the underlying norm against use. Political expedience and the almost unanimous backing of Iraq in its war against Iran explain this regrettable lack of defence of the Geneva Protocol.

In this context should be registered Iraq’s non-compliance with its obligations as regards chemical weapons (as well as biological weapons and nuclear weapons) under Security Council Resolution 687 (1991), which constitutes the ceasefire between Iraq and the victorious coalition in the Gulf War for the liberation of Kuwait. In addition to being a mandatory resolution under the UN Charter, the binding character of the provisions of the Security Council resolution is manifest in the formal acceptance by Iraq of the resolution as a condition for the ceasefire. This did not prevent Iraq from providing false declarations and systematically blocking inspector activities.

### III. Biological weapons

Biological weapons were long considered not to pose any severe problems. During the cold war the matter of security was seen through the prisms of military adaptability and practicability. With delayed effect on the enemy, biological weapons could not be the battlefield weapon of choice. Therefore, the BTWC was negotiated quickly with no one seriously bothering to load the convention with verification, control and compliance provisions. However, a few years after 1975, when the BTWC had entered into force, concerns, although low-key at first, were raised whether the Soviet Union really took seriously its obligations under the convention. The Sverdlovsk incident in 1973 raised suspicions, but they were flatly rejected by the Soviet side. However, after the collapse of the Soviet Union it was revealed that a massive biological weapons (BW) programme had been conducted by the country, starting simultaneously with the moment when the Soviet signature was put to the convention.

Iraq’s secret large-scale BW programme, disclosed by UN inspectors, surprised the international community and added to a concern which led to an agreement between the states parties to the BTWC to start serious negotiations on drafting a protocol on verification and monitoring of compliance with the convention. With the advent of the post-cold war era came a new type of armed conflict—civil wars in which more civilians were targeted than uni-



formed combatants. Terrorizing the population, mass murder and similar practices have tended to draw attention to the terror practice par preference—biological warfare.

The disclosures of the large-scale BW development, testing and production programmes in Iraq and Russia have thus added new urgency to the efforts to strengthen the BTWC. With the dynamic development of bio-science and DNA technology, the question of weapon applications in this context must be given special attention. In spite of concern expressed on the highest levels there has been a depressing foot-dragging by the major countries in the negotiations on the new protocol. Russia's continued unwillingness to open its biological weapon facilities to international inspectors poses a continuing challenge to the BTWC. The US Government's hesitation in the negotiations on the additional protocol to accept effective declarations and verification measures threatens to undermine the viability of a future protocol for verification purposes. If we add Iraq's refusal to re-admit UN inspectors to the country, there is indeed reason to express concern with regard to the state of affairs in the BW area.

With the potential for application of BW for terrorist use, export control arrangements are important. Exporters of material and technologies, sensitive from the point of the BTWC, have to cooperate on an export licensing regime. The Australia Group, through which states engaged in trade of such items coordinate their licensing procedures and policies, serves an important purpose. However, the developing countries frequently complain about the practices of the Australia Group, which they see as discriminatory and aimed at keeping material and technology, important for their economic development, out of their hands. Similar complaints are heard about the role of the Australia Group in the context of exports of dual-use chemical material and technology to developing countries. It is, however, difficult to arrive at a meeting of minds until the importing countries are ready to tolerate considerable transparency, including international inspections, as regards the use and application of dual-use items.

#### IV. Nuclear weapon proliferation

The analysis of the matter of compliance with the NPT must be divided into two major categories, in conformity with the two types of undertaking which are part of the treaty: first, the undertaking not to acquire nuclear weapons; and second, the undertaking to negotiate the disarmament of the nuclear weapon states in good faith.

In support of this second undertaking, the safeguards system plays a crucial role. NPT safeguards have sometimes been classified as a verification system. This is not completely accurate, as the safeguards, especially before the recent reform, do not fully correspond to the criteria of verification. It is probably better to characterize safeguards as confidence building. The safeguards

inspections are focused on declared activities and facilities. However, they serve well to sort out anomalies, misunderstandings and misinterpretation as regards the civil nuclear programmes of the member states. There is little scope for addressing non-declared activities and even less for non-declared facilities; furthermore, as regards nuclear weapons, the safeguards do not address such aspects as nuclear weapon design and delivery systems.

It came as something of a blow to the non-proliferation system when Iraq, an NPT party in good standing, was exposed as a major violator of the fundamental undertaking not to acquire nuclear weapons. Iraq's action was also in violation of the principles governing relations between states. It had hitherto been the assumption that, when a state wanted to preserve its option of eventually acquiring nuclear weapons, it would stay out of the treaty, not join it and then try to acquire nuclear weapons. Iraq's behaviour was a violation of the trust which the parties to a treaty must have in each other and which is the building block on which all treaty-based relations are founded.

The growing concern of the member states and increased scepticism as regards the capability of the safeguards system became one driving element in the efforts to strengthen the safeguards regime through the '93 + 2' reform, which was adopted with reasonable success. In spite of the indisputable improvement of the safeguards regime, it still does not constitute a comprehensive verification arrangement. It is important that the new safeguards system is not presented as such. The NPT must, in spite of Iraq's behaviour, still rest on the commitment by its parties not to acquire nuclear weapons.

The UN Security Council adopted in January 1992 a statement to the effect that the proliferation of WMD constitutes a threat to international peace and security. The Council, which on that unique occasion met at the level of heads of state or government, referred to its obligations in relation to the UN Charter and has indicated that it was its duty to address such events as proliferation. The Council has also since then addressed three cases of proliferation in addition to Iraq, namely, India and Pakistan, following their nuclear test explosions in May last year, and North Korea, a party to the NPT. In the first two cases the Council adopted Resolution 1172, sharply critical of India and Pakistan. With regard to North Korea, the Council limited itself to informal sessions in support of the efforts of the USA to negotiate an arrangement with North Korea, signed in 1994 by the USA and North Korea as the Agreed Framework.

In 1997 the UN Secretary-General proposed a strengthening of the disarmament capabilities of the Secretariat with *inter alia* a small number of weapon experts in order better to serve the Security Council in its declared ambition to prevent the proliferation of WMD. Only a modest improvement survived after the General Assembly's treatment of this proposal, during which India and Pakistan stood out as the leading opponents of the Secretary-General's initiative.

## V. The obligations of the nuclear weapon states

As regards the compliance by the nuclear weapon states with their obligation under NPT Article VI to negotiate disarmament in good faith, the most positive event is the attainment in 1996 of the long sought for Comprehensive Nuclear Test-Ban Treaty (CTBT). Until 1996 all five nuclear weapon states had de facto blocked the negotiations on such a treaty. The turn-around was a consequence of determined efforts by the US Administration. This achievement, although it remains for China, Russia and the USA to ratify the CTBT, has almost insulated the nuclear weapon states from criticism and scrutiny as regards their implementation of Article VI.

In addition, implementation of the Soviet/Russian–US 1991 Strategic Arms Reduction Treaty (START I) in the form of phased reductions, has been proceeding in a steady manner. There have, however, been some signs of complaints from the Russian side against US implementation of START I. In addition, as is well known, the process of moving forward with the ratification of the 1993 Strategic Arms Reduction Treaty (START II) has been stalled. The reversal of the no-first-use policy of Russia and the Duma's repeated refusals on the flimsiest of pretexts to proceed with the ratification of START II are ominous signs. A new complicating factor is the reintroduction of the matter of national missile defence and its impact on the 1972 Anti-Ballistic Missile Treaty, the START II Treaty and the prospects for a START III accord. Another and growing concern is the lack of any serious effort to bring tactical weapons into an arms control and reduction process.

One consequence of the hesitating compliance with the disarmament provision of the NPT is a rapidly growing risk of violation of Article I. The problem derives from weak internal controls, especially in Russia and other former republics of the Soviet Union. There is no sign that the authorities are actively violating any international obligation, but desperate financial needs and weakening of law enforcement in combination with the lack of discipline in export controls can lead to the proliferation of nuclear and missile technology and material to states suspected of actively pursuing a nuclear weapon option, like Iran and Iraq (now freed from international inspections). The inability of the Russian authorities to investigate and prosecute violations of its export control regulations gives rise to serious concerns. Article I not only addresses state organs as exporters but obligates the state to prevent non-state actors such as private companies and individuals from transferring nuclear weapon technology.

The near stalling of the nuclear arms reduction process in combination with last year's events in South Asia has had an overall negative impact on the political atmosphere surrounding the NPT. The great majority of the non-nuclear weapon states have most certainly no intention of changing their policy of non-acquisition of nuclear weapons. It is a policy which serves their respective national security interests. In spite of this, a development which is perceived as non-compliance by some of the parties—whether nuclear or non-

nuclear states parties—will undermine the sense of solidarity and loyalty which has always been crucial for the stability of, adherence to and attractiveness of the NPT. A weakening of the non-proliferation regime in turn would further weaken the resolve to cooperate against proliferation.

## VI. Delivery systems

Although not weapons of mass destruction, ballistic missiles as delivery systems for such weapons are highly significant in any arms control context. For decades in the strategic arms limitation and reduction talks, the number of missiles has been the unit of accounting. Missiles with intermediate or strategic range are so expensive items that it is unlikely that they would be used for other purposes than to deliver nuclear warheads or at least biological or chemical weapons to the target. The unavoidable testing requirement makes it possible to detect missile development, which in turn would point to an ambition to acquire nuclear, chemical or biological weapons. The Missile Technology Control Regime (MTCR) is, like the Australia Group, a voluntary arrangement between states with the aim of preventing the spread of ballistic missile technology. The member states undertake not to export certain specified dual-use items and to notify each other about *inter alia* refusals of export licences in order to prevent any other member state from exporting an item for which an export licence has been denied. The voluntary character of the arrangement is such that there are no compliance provisions linked to the MTCR.

## VII. The UN Security Council and compliance

With regard to the three major multilateral disarmament treaties—the NPT, the CWC and the BTWC—the Security Council has been given special responsibilities and duties. The CTBT, which has not entered into force, contains similar provisions with a referral to the Security Council.

The NPT ultimately relies on the Security Council to consider questions of enforcement. Article X of the NPT requires parties that intend to withdraw from the treaty first to notify the Security Council and provide a statement of the ‘extraordinary events’ which necessitate such action. The NPT further requires non-nuclear weapon parties to enter into safeguards arrangements with the International Atomic Energy Agency, which has to refer any apparent violation of the safeguards system to the Security Council. The first time such a referral took place was 1993, when the case of North Korea was referred to the Council. The CWC provides a special role for the Security Council in considering questions of enforcement and withdrawal, and the BTWC contains a corresponding provision. In addition to the treaty-based authority, the Council has the basic authority to deal with matters pertaining to proliferation derived from the fundamental function and powers conferred on the Council by the UN Charter. However, none of the treaties specifies what action the Council

should take. It has decided on the appropriate action in each case in accordance with its primary responsibility, maintenance of international peace and security.

Proliferation of WMD may well turn out to become the major international security threat for decades to come, as the Council itself noted in its January 1992 statement. The Council should have a role in this and other respects. The global regime has serious gaps that are likely to persist, and no single state or other institutional actor can adequately address the proliferation threat on its own. The Security Council can and should play an enhanced role in attempting to compensate for the shortcomings of the regime. It should give primary emphasis to practical mechanisms for early warning and preventive diplomacy. The Council, with its inherent limitation as a body requiring political consensus, at least among its five permanent members, will nonetheless remain the only global institution with the scope, political legitimacy and legal authority to enforce collective international decisions in response to proliferation threats. To be able to shoulder such responsibilities, the Council should commit itself to enhancing its capability for early warning of proliferation threats and to engaging in preventive diplomacy to address such imminent threats. To this end, and especially to assist the non-permanent Council members, the UN Secretariat should be given the resources to assemble and analyse developments in the non-proliferation field. The Secretary-General could draw the attention of the Council to potential proliferation problems. The Council could consider its actions in the light of the seriousness of the situation.

Two major cases of treaty violation have during the past decade been brought to the Council's attention, North Korea and Iraq, and the two cases have been treated in two different ways.

In the case of North Korea, as mentioned above, the Council supported the process towards the establishment of the Agreed Framework, which aimed at encouraging North Korea to steer away from a course which could have led it to acquire nuclear weapons. In the case of Iraq, on the basis of the ceasefire provisions of Security Council Resolution 687 (1991), the Council took the responsibility for establishing a strong international inspection regime backed up occasionally by the threat of the use of force.

These cases demonstrate that the Security Council is capable of choosing from a wide range of remedies to address potential non-compliance—from cooperative arrangements over sanctions to the use of force.

When in May 1998 India and Pakistan, neither of them a party to the NPT, carried out nuclear weapon tests and made public their aspirations to become or be regarded as nuclear weapon states, the Security Council reacted sharply and established its credentials as responsible for the security implications of the new development in two statements, on 14 and 29 May, and specifically in Resolution 1172 (1998) reiterated its statement of January 1992—thus reaffirming that the proliferation of any WMD constitutes a threat to international peace and security.

Reflecting on this statement and accepting that in the multilateral disarmament field the norm-creating process has essentially been accomplished, attention should now shift to implementation, compliance and enforcement as priority tasks for the international community. The urgency and complexity of these tasks have increased, with new actors in addition to states, namely, regional warlords, criminal syndicates and various terrorist groups, showing signs of becoming involved in trading with and acquiring weapons of mass destruction, related components and their means of production. These developments and trends constitute a new and unprecedented challenge to the UN and require new thinking and new approaches.

Considering that the primary purpose of the United Nations, as stated in Article 1 of its Charter, is the prevention and removal of threats to peace and the suppression of acts of aggression, few other tasks than WMD non-proliferation and disarmament can better serve this purpose.

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## 22. Transparency, verification and safeguards

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### I. Introduction

In the novel *Remembrance of Things Past*, Madame de Villeparisis always uses three words to describe a situation or express a feeling.<sup>1</sup> The curious twist of this habit is the choice she makes to start with the most emphatic word and to end with the word that is more limited in scope, contrary to basic rules of rhetoric. A similar gradation is present in the title of this paper, from the vague concept of ‘transparency’ to the more technical one of ‘safeguards’.

The terms in the triad ‘transparency, verification and safeguards’, although pertaining roughly to the same area of competence, have different meanings.

Transparency is undoubtedly the widest in scope. Not only does it refer to information, the access to it and the reliability that can be associated with the data obtained, but it also has a major political assumption: that openness is one of the many dimensions of regional and international security. This assumption is not universal. Opacity or at least ambiguity could be favoured in certain regions or by some political regimes.

The importance and scope of verification have been steadily growing since the end of the cold war. It essentially involves monitoring compliance with treaties and agreements, but the verification tasks associated with peace missions have also expanded dramatically. They now include not only the disarmament and demobilization of troops but their reintegration into society as well. Multiple and increasingly sophisticated tools are now available to implement verification which is supposed to demonstrate the bona fide of parties and, to some extent, also to deter cheating.

The use of the term safeguards, finally, is even narrower in its usual meaning as only one of the verification supplements or means, with frequent reference to the International Atomic Energy Agency (IAEA) verification system.

Why is transparency such an important concept in arms control and international security today? Is there a continuum of levels of confidence deriving from the information from these three different means? What are the priorities of the future agenda in this respect? These are some of the questions addressed in the sections below.

<sup>1</sup> Proust, M., *À la recherche du temps perdu* [Remembrance of things past], (Gallimard: Paris, 1947).

## II. Transparency in the post-cold war era

The reasons for the increased importance of transparency in arms control and security matters are both political and technical.

### **The political dimension: openness and resistance to it**

The political dimension has to do with the end of the cold war. Experience of the cooperative security process in the East–West context suggests that transparency has played a significant role in lessening the tension between the two blocs. Transparency measures can even claim a significant share of credit for the rapprochement that finally took place between them. The cooperative process has relied heavily on an increasingly sophisticated set of confidence-building measures and transparency measures designed to have significant security benefits (whence the denomination ‘confidence- and security-building measures’). The information exchanges on military forces, doctrines for strategic planning and notification of military activities had major security objectives: to ensure that the East–West competition would be less risky and more predictable. Reducing the likelihood of the use of force, in particular of surprise attack, was a sensible goal between the two military alliances, which had the ability to completely destroy themselves and all of Europe, should deterrence fail. An additional advantage was the lessening of the Soviet pressure on the Central European countries reinforced by the permanent threat to use force against them.

Commonly seen as uniquely valuable for Europe because of the unique European conditions, transparency measures in the East–West context have probably less to do with Europe and its peculiarities than with the enormous threat and the risks arising from possible miscalculations and surprises. The Conference on Security and Co-operation in Europe (CSCE)<sup>2</sup> process took place in the context of the most impressive political, ideological and military confrontation known in human history, with a large part of Europe occupied by Soviet forces and with a high level of distrust on both sides. What has been achieved in such extreme circumstances is probably possible elsewhere, provided that the will to build confidence and stability exists.

Confidence, security and transparency measures are particularly relevant to regions of tension, notably the Middle East, South Asia and above all East Asia, where the risk of armed conflicts is significant. Asia is famous for its reluctance to openly address security issues, but it is increasingly clear that silence and ambiguity are not the best recipes to avoid crises, since they only increase the possibility of misunderstanding and miscalculation. Transparency measures concerning the size, doctrines and operational practices of the military forces could make military behaviour more predictable in Asia and, in the

<sup>2</sup> The CSCE was made a permanent organization—the Organization for Security and Co-operation in Europe (OSCE)—on 1 Jan. 1995.



best case, reassure concerned states of the non-threatening intentions of their neighbours. For the time being, only the initial stages of transparency are being contemplated there, but reluctance could be progressively overcome if security benefits can be recognized.

In any case, the new emphasis on openness is no longer limited to the so-called Western world, as the tragic accident of the *Kursk* in the Barents Sea recently showed. International cooperation had to be accepted, even too late to save lives, in order to open this ultra-secret nuclear attack submarine, the largest in the world. The Russian public opinion only complained that the acceptance of external intervention was so late. This story does illustrate the new meaning national sovereignty is acquiring. It is progressively considered less as a way of insulating the state against external scrutiny and more as a normative concept of responsibility. Arms control and disarmament are only part of the picture, but they do share the consequences of this emerging policy framework.

The 1999 Tokyo Forum report on non-proliferation and disarmament places a considerable emphasis on transparency.<sup>3</sup> With such an approach, it is not surprising that China was characterized as the least transparent of the nuclear weapon states and became the focus of some attention, unlike in the 1996 Canberra Report on the same subject.<sup>4</sup> The staunchest opposition to the widespread feeling that openness and transparency are significant for peace and stability is coming from Beijing. China contends that transparency should be offered only from a position of strength, a conception that is radically at odds with the common view of transparency as a confidence-building measure. To some extent, it is even an opposite view, raising suspicion that transparency is used only when a 'show of force' is deemed necessary, for instance by deploying 150 short-range ballistic missiles across the Taiwan Strait. It would also be consistent with this policy to use opacity to hide or protect a military build-up. As Rebecca Johnson suggests in a recent article in *Disarmament Diplomacy*, 'Beijing's real objection centres on preserving the culture of military secrecy, growing with interest in theories of asymmetric and 'unrestricted' warfare, which rely on ambiguity and unexpected response configurations'.<sup>5</sup>

It is largely this suspicion that leads an increasing number of actors in and outside the region to ask China to declare its capabilities and intentions, particularly in the ballistic missile and nuclear fields. The questions posed have not yet received satisfactory answers. From time to time China expresses its

<sup>3</sup> Tokyo Forum for Nuclear Non-Proliferation and Disarmament, 'Facing Nuclear Dangers: An Action Plan for the 21st Century: The Report of the Tokyo Forum for Nuclear Non-Proliferation and Disarmament', Report presented at the Tokyo Forum for Nuclear Non-Proliferation, Tokyo, 23–25 July 1999, available at URL <<http://www.stimson.org/clusters/tokyoforum.html>>.

<sup>4</sup> Canberra Commission, 'Report of the Canberra Commission on the Elimination of Nuclear Weapons', Report presented at the Conference on Disarmament, Canberra, 30 Jan. 1997, available at URL <<http://www.dfat.gov.au/cc/cchome.html>>.

<sup>5</sup> Johnson, R., 'NPT 2000: implementing the disarmament pledges', *Disarmament Diplomacy*, no. 48 (July 2000).

irritation at the international community by saying that transparency only makes the weak weaker, illustrating once again the notion of transparency as a means of showing strength. This is probably misguided thinking, however, since unless China improves transparency the perception of its threat is sure to grow in East Asia, with all the possible unpleasant consequences for Beijing itself, including growing interest in short-range missile defences and strengthened US military ties with Japan and Taiwan. Increased transparency in Asia can be described as a major regional and international goal, but it will be a hard-fought, hard-won battle.

### **The technical dimension: transparency and deception**

Technical developments also play an important role in the current vogue of transparency. For some time, the world has been circled by satellites in orbits that transcend national borders. In the East–West context, at a time when the competition was at its peak, satellites contributed to mutual confidence without intrusiveness on the ground, always more difficult to obtain between enemies, but they now provide information with increasing precision. Although the available information still needs to be assessed correctly, as the 1999 NATO bombing of the Chinese Embassy in Belgrade has shown in a most embarrassing fashion, the precision of modern satellites is a key element in the centrality of transparency in security matters. Countermeasures are also at hand, among them decoys and underground facilities. The air campaign in Kosovo prompted the use of a significant number of decoys. They may have been primitive (inflatable or wooden tanks, false bridges and roads) but far from ineffective in deceiving the pilots and the so-called smart weapons. Deception by a military adversary is an art that democratic societies seldom understand. The strategic relationship between accountable and open countries and opaque and deceitful ones is a complex subject, with many possible scenarios at hand. In the light of the cold war, openness has won, but no universal rule can be written down. To predict permanent defeat of opacity and deception would be highly uncertain in practice. The importance of deception in the outcome of World War II and the victory of the allies is a good contrary example.

Concealment can be as valuable as deception in inhibiting surveillance from space or air. The world champion in underground facilities is probably North Korea, which has long been considered one of the most tightly closed, unpredictable and dangerous countries in today's world. It is not clear whether or to what extent Pyongyang's more open policy should be seen as a new strategy, but the appearance of a thaw in North–South relations after the historic June 2000 Summit has caused less pessimistic assessments. It is true that no concrete concessions have been made so far by Pyongyang on any major security concern: the moratorium on missile tests is coupled with numerous types of cooperation abroad in the ballistic missile area; the amount of plutonium

reprocessed by North Korea in 1989, 1990 and 1991 remains unknown; the inspections of the Kumchang-ni site, where covert nuclear activities were suspected and not found by US inspectors, could have been prompted by astute North Korean deception—thousands of workers on this site were sure to draw the attention of US satellites; hundreds or even thousands of tunnels across the country continue to prevent any precise assessment of North Korean capabilities, political intentions and military plans; and finally, according to two non-proliferation experts, David Albright and Kevin O’Neill, new constructions in Yongbyong remain unexplained.<sup>6</sup> Transparency, verification, and safeguards are still unknown in North Korea but for the limited verification of the freeze agreed to in October 1994 on the nuclear programme.

In sum, transparency provided by satellites, even with increasingly accurate information, has to take into account the resort to countermeasures and concealment techniques, improving as well. National technical means will also remain more useful in a bilateral than in a multilateral context: the limited availability of satellites to the majority of states, particularly in the developing countries, is a significant shortcoming for the verification of multilateral treaties, even if and when they are taken into account.

The revolution in information technology also stimulates ever greater transparency with more and more information processed and distributed in today’s world. One of the limitations of this evolution is the difficulty in screening the amount of available information and the remaining qualitative difference between information and knowledge or even between knowledge and wisdom. On the other side, it is increasingly difficult to conceal information, and countries trying to block or delay such a technological evolution are most probably fighting a lost battle. Also essential to the current evolution of verification procedures is the use of remote monitoring techniques, which are becoming an essential tool, since they ought to provide one of the major efficiency gains. They should not replace on-site inspections, however, which remain the best way to increase confidence and deter cheating. Therefore, to ensure success, verification processes increasing reliance on remote monitoring have to prove their effectiveness before contemplating actual reduction of on-site inspections.

### III. Transparency and verification: their complementarity

As compared to verification, the information obtained through transparency measures is of more questionable value. However, the main lesson provided by experience is probably that the whole may be more than the sum of its parts—in other words, transparency and verification are more significant and useful when they are associated with each other. Transparency without verification has evident shortcomings. The development of transparency has been

<sup>6</sup> Albright, D. and O’Neill, K. (eds), *Solving the North Korean Puzzle* (ISIS Press: Washington, DC, 2000).

influenced by the challenges of verification over the past decades in many ways. One is to use transparency measures as a step towards verification when the latter is still out of reach. Such is the case up to now as far as fissile material stocks for explosive purposes in nuclear weapon states are concerned. Not subject to IAEA safeguards but marginally, due to the limitations of the Russian and US initiatives in this respect, the amount of highly enriched uranium and plutonium in the possession of nuclear states can be estimated, but remains unknown. The call for transparency on this matter is supposed to contribute to preparations for future negotiations concerning the cut-off convention. France, Russia, the UK and the USA announced their decision to stop production of plutonium and highly enriched uranium in the period from 1992 to 1996 with this perspective in mind. A similar reasoning has been adopted for tactical nuclear weapons between Russia and the USA. Not included in bilateral agreements so far, they were the subjects in 1991 and 1992 of major unilateral announcements by Presidents George Bush, Mikhail Gorbachev and then Boris Yeltsin. Although welcome and even significant at the time, the limits of such declarations are now clear enough. When the Russian military doctrine and even Russian military exercises put more emphasis on nuclear weapons, particularly tactical ones, such unilateral commitments could be abandoned, even without a public declaration. Transparency without verification has some merits, therefore, but their limits are clear.

Conversely, verification without transparency poses delicate problems for inspectors. In some specific cases, and precisely when it is most needed, verification has to be implemented in a more or less opaque or even hostile environment, as the Iraqi case clearly shows. Iraq is also the best example of what can be achieved with intrusive verification when there is no transparency. The hardest test is provided by Iraq's biological programme. Eight declarations provided by Baghdad since 1991, and defined by Iraq as 'full, final and complete', are still neither full, final nor complete. Lies and deception have been constant features of the Iraqi strategy. In such a context, the considerable amount of information gathered on the nuclear, chemical, biological and ballistic missile programmes is a remarkable illustration of verification, even if part of it has been acquired with the decisive help of Iraqi defectors. Verification was an essential part of the ceasefire in 1991 and it remains so. The absence of on-site inspections and verification activities in Iraq since December 1998 (but for the IAEA safeguards applied to nuclear materials remaining on Iraqi territory and consisting of low enriched, natural and depleted uranium) is therefore a major matter of concern.

Military action does not achieve much in terms of disarmament, but there would be less unilateralism if there were more multilateralism within the Security Council. A new beginning is now indispensable in Iraq with the implementation of UN Security Council Resolution 1284 in order to finish the job as defined by UN Security Council Resolutions 687, 705 and 715. It does require the unanimous support of the five permanent members of the Security Council (the P5), even if three of them have chosen abstention on Resolution

1284. Their responsibility is at stake before the rest of the Council and the international community as a whole to prevent Iraq from reconstituting its weapons of mass destruction capabilities. Iraq's neighbours most certainly draw their own conclusions from the current situation and could also contemplate unilateral actions in the future. This is in no one's interest. The new international body of inspectors dealing with Iraq—the UN Monitoring, Verification and Inspection Commission (UNMOVIC)—will have to overcome Iraq's refusal to comply with the new resolution. The level of information which might still be obtained in Iraq is unclear, but there is general agreement concerning the inadequacy of what is available so far.

The main conclusion from these examples is probably that the shape of things to come should increasingly rely, whenever possible, on both transparency and verification. However, there is also a serious risk that transparency will be used as a substitute for verification and that non-cooperative partners will continue to challenge international willingness to enforce international law.

#### IV. Nuclear safeguards: the least imperfect tool?

The IAEA safeguards system has evolved over more than 30 years and this long period of time and experience is a decisive part of their value. In the 1990s, under the pressure of challenges posed by Iraq, North Korea and South Africa, the Board of Governors and the IAEA sought to adopt new measures. The three cases are different, but they all tell the same story: the difficulty to detect clandestine nuclear activities. More openness is needed from member states in order to avoid a deep suspicion concerning safeguards adequacy to fulfil their task under the 1968 Non-Proliferation Treaty (NPT) in the future.

South Africa acceded to the NPT in 1991 and, when President F. W. de Klerk disclosed in 1993 the former South African nuclear military programme, the IAEA was invited to verify its termination. The task was unusually complex and far-reaching for the traditional IAEA verification system. Access to all facilities that had been used for the programme was granted and the history of the nuclear military project was disclosed as well. It contained a number of sophisticated deception measures to fool verification (in particular US satellites), including a large number of dual-use facilities.

In Iraq, the IAEA was granted extraordinary rights to fulfil its mandate: under Resolution 687, the IAEA had to develop a plan 'for the destruction, removal, or rendering harmless' of Iraq's 'nuclear weapons or nuclear-weapon-usable materials or any subsystems or components or any research, development, support or manufacturing facilities related to' the weapons or the nuclear-weapon-usable materials. Unrestricted freedom of entry into Iraq and unrestricted freedom of movement in Iraq were granted to inspectors. The disclosure of Iraq's clandestine nuclear military programme in violation of its obligations under the NPT was progressive. Only Hussein Kamel's defection

in August 1995 led the Iraqi Government to recognize that a 'crash programme' had been planned to assemble a nuclear device. Clearly, no routine inspection of declared nuclear material could have detected this significant nuclear military programme.

In North Korea, the experience was different again. US satellite images showed images of two structures not listed in North Korea's initial report and not open to inspectors, while the IAEA analyses revealed that several reprocessing campaigns had taken place and not a single one as contended by Pyongyang. Additional access and additional information would have been indispensable to answer the questions posed by inspectors (which still remain pending today).

In 1995, the IAEA Board of Governors agreed to put into effect some new measures that did not require additional legal authority. The second part of the programme was approved two years later, in May 1997. From then onwards, the traditional system has been supplemented by additional transparency from member states, with more information on their nuclear programmes plus increased access to their sites. More is expected from states regarding additional information generated by additional means, but the Agency also attaches less unquestioning confidence to the information provided, using extra sources to cross-check the extended declaration. The new measures allow more qualitative verification activities to be carried out to complement conventional inspections. In combination with the safeguards agreement, the additional protocol gives the IAEA a better ability to have a complete picture of a state's production and holdings. The verification function of the Agency under strengthened safeguards will aim at the detection of any diversion of both declared and undeclared nuclear material. The stronger verification regime has three major pillars: (a) more information about locations and activities, (b) more access to locations of interest and (c) more technology to support verification.

## V. Some priorities

*Tactical nuclear weapons.* There are no public data on the number and location of tactical nuclear weapons (TNW). Nor are there any public data with respect to the number of eliminated nuclear warheads. Unofficial estimates vary widely, and doctrines fluctuate as well. Transparency measures regarding the existing deployed and undeployed TNW would therefore be essential, particularly concerning countries advocating continued reliance on TNW, even before discussions and negotiations, either bilateral or multilateral, could be envisaged. The 1991 Russian and US unilateral commitments could be confirmed, formalized and extended with further withdrawal and elimination of deployed TNW and the inclusion of verification measures.

*Ballistic missile technology.* The Missile Technology Control Regime needs to be strengthened in order to address ballistic missile proliferation in a more

effective manner. It could include a code of conduct comprising clear non-proliferation commitments, notably from the P5, in this increasingly destabilizing area, and an array of confidence-building measures (pre-notification of missile tests and transparency measures).

*Biological weapons.* Compliance with the 1972 Biological and Toxin Weapons Convention (BTWC) by major powers, notably China and Russia, with access to suspected facilities is a major objective along with the adoption of the BTWC Verification Protocol.<sup>7</sup> The Protocol is and will remain imperfect, but failure to adopt it would give the dangerous signal that military biological programmes have a free ride at a time when new threats have emerged in the field through the spread of recent scientific advances, requiring the opposite policy. The Protocol could be supplemented by a number of other measures, including a code of conduct for biologists and the criminalization of scientists involved in military biological programmes.

*Chemical weapons.* Although 136 states had become parties to the 1993 Chemical Weapons Convention as of 1 September 2000, concern persists about the transparency of chemical demilitarization in a number of key states parties, including Iran and Russia.

*IAEA safeguards.* Implementation of the strengthened safeguards regime, which was set up in 1997, is now the priority for the IAEA. It is still in the initial stages of implementation. Its success will depend on the following factors: acceptance by member states of the additional protocol; the quality of the evaluation process; the effectiveness of human resources; the equipment acquisition; and the financing of safeguards.

*Verification scenarios related to nuclear disarmament.* They should in particular take into account the technical challenges of verifying actual reductions of nuclear holdings without disclosing secret data which should remain secret: verification must therefore permit authentication while protecting sensitive information.

However perfect any future verification system might be, the *backing of the Security Council*, in which the enforcement power of the UN resides, will remain essential in case of violation. A suspension of the veto right in such circumstances appears crucial to prevent possible abuse of this privilege to support, even indirectly, proliferation. Such proposal would be consistent with the statement of the President of the Security Council in January 1992 characterizing nuclear proliferation as 'a threat to international peace and security'.

## V. Conclusion

Transparency could be an essential step towards effective verification. It should not, however, become a substitute. Nor does it by itself necessarily increase security, since it might also provide warning signals and even threats.

<sup>7</sup> Documents on the BTWC can be found at URL <<http://projects.sipri.se/cbw/docs/bw-btwc-mainpage.html>>.

Verification measures are dramatically expanding. They will remain imperfect but are also constantly perfectible. It appears preferable to look at the perfectibility rather than at the imperfection.

Strengthened nuclear safeguards will enhance the nuclear non-proliferation regime by increasing the confidence of NPT parties that the regime is implemented. Enhanced possibility to identify or investigate cases of non-compliance will not by itself, however, solve the question related to the adequate response to blatant violation.

The issue of political will in case of violation was already strongly underlined in a seminal article published in 1961 by Fred Iklé in *Foreign Affairs*, 'After detection—what?': 'Detecting violation is not enough. What counts are the political and military consequences of a violation once it has been detected, since these alone will determine whether or not the violator stands to gain in the end'.



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## 23. Verification of compliance

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*Andrzej Karkoszka*

### I. The legacy of the cold war

During the cold war, the controversies over verification and other types of measure designed to ensure the implementation of arms control and disarmament agreements, although justified in part by the complexity of the issues involved, served mainly as a smokescreen for the lack of political will to reduce or control armaments. This lack of political will was in turn a natural result of the general ideological, political and hence military confrontation between antagonistic states, locked in a 'security dilemma' of arms races, deterrence and mutual distrust.

For the Western group of states the demand for 'full proof' verification of compliance was an expression of their total distrust of the intentions of the Eastern bloc and the only way to ensure parliamentary acceptance of any agreements dealing with the vital security of states. For the states of the socialist camp, led and controlled by the Soviet Union, these demands were, as the official propaganda had it, a vivid example of a plot to open up, weaken and eventually destroy their security.

The result of this controversy was a long stalemate in disarmament negotiations and mutual accusations that they were being used as a propaganda tool. What was achievable in this situation was only a set of confidence-building and crisis-management agreements and agreements of no direct impact on the military arsenals of the participating states, neither requiring any substantial verification. In this category of cold war achievements in disarmament belong all the 'hot line' arrangements; the 1959 Antarctic Treaty; the 1967 Outer Space Treaty; the 1971 Seabed Treaty; the 1972 Biological and Toxin Weapons Convention (BTWC); the 1977 Enmod Convention; the 1979 Moon Agreement; and the 1993 Chemical Weapons Convention (CWC).

Another category of disarmament agreement of that period was agreements of great significance for world security but which did not cover the military potentials of the five nuclear weapon states. To this group belong the 1972 Treaty of Tlatelolco, the 1985 Treaty of Rarotonga and, in particular, the 1968 Non-Proliferation Treaty (NPT). Verification of these agreements was executed mainly through the safeguards under the International Atomic Energy Agency inspection and accounting system dealing with the civilian nuclear fuel cycle of states concerned.

The only broad international arms control agreement of that period to which nuclear weapon states adhered was the 1963 Partial Test Ban Treaty, which had no international mechanism for verification of compliance. Its conclusion

was forced upon the nuclear weapon states by world public opinion and it was monitored by their national technical means (NTM) of verification, mainly by satellite-based detection of neutrons, and gamma- and X-rays emitted by nuclear explosions. All other state parties, deprived of such NTM, had to rely on information released by the two great powers.

It was also thanks to the development of many different NTM of detection, observation and eavesdropping—procured by the nuclear weapon states, particularly the United States and the Soviet Union, because of their profound mutual distrust and fear and which served to protect and improve their military arsenals—that they were able to conclude several bilateral arms control and disarmament agreements. These agreements include the 1972 Anti-Ballistic Missile Treaty, the 1972 Strategic Arms Limitation Agreement and the 1979 Strategic Arms Limitation Treaty.

The application of NTM for verification purposes required cooperation among the contracting parties: non-concealment, no encryption, agreed counting rules and agreed ‘observable’ features for different weapon categories. In the case of bilateral strategic disarmament agreements the NTM of observation served well, giving the states possessing such means a high degree of confidence of detection of violations. They were also used by the nuclear weapon states to provide such insurance in all other areas of arms control and disarmament.

However, being intricately connected with the technical intelligence apparatus of the nuclear weapon states, the findings of NTM of verification could not serve as a basis for mutually agreed, or internationally analysed, confirmation of compliance with or breach of an agreement. At best, the contentious issues arising from the findings of such detection systems could be privately discussed on a bilateral basis and, in cases of disagreement, published with no or only sketchy material proof of violation. This led to serious political confrontations, adversely influencing the working of agreements, ongoing negotiations on other arms control issues and the political relations of states in general.

With regard to the development of practical arrangements to verify compliance with multilateral disarmament agreements, the legacy of the cold war is very modest. Although the literature as well as the theoretical and political debate on verification were reflected in various proposals, the actual solutions embodied in treaties were meagre, permitting only a few known methods and forms of verification to function. Moreover, the same political antagonism which stymied any joint effort to develop verification systems also paralysed states’ ability to respond jointly and cohesively to flagrant violations of disarmament agreements. In a situation where norms of compliance were not clear-cut, no objective process for verifying the actions of states was set up, ideological–political controversies abounded, and any accusation of misconduct was immediately politicized in the wider context of cold war relations. This lack of an organized method of uniform, mandatory international responses to cases of non-compliance led to a general degradation of the world

community's sensitivity to the use of inhumane and other proscribed weapons. The best example of this was the lack of response to the use of chemical warfare agents by Iraq, a state party to the 1925 Geneva Protocol, against civilian Kurds and the Iranian Army in the 1980s.

## II. Breakthrough in verification of disarmament

It was only with the political breakthrough in East–West relations in the late 1980s and particularly after the end of the cold war that more robust verification mechanisms could be incorporated in arms control and disarmament agreements. The beginning of this new era in verification was marked by the 1986 Stockholm Document on Confidence- and Security-Building Measures (CSBMs) and Disarmament in Europe, signed by the 35 members of the two military blocs and the neutral states. This agreement envisaged a whole gamut of international cooperative measures: from exchange of data and prior notifications, to consultations, control posts and observations, on-site inspections and submission of reports. The Stockholm Document was followed and improved by the adoption of the Vienna Document 1990 on CSBMs, again improved in the Vienna Document 1994. The latter document strengthened the verification system and added *inter alia* the exchange of standardized data on current and future military budgets and plans for new weapon systems, visits to air bases, exchanges between officials, experts and academics, and the creation of a Conflict Prevention Centre responsible, among other things, for annual implementation assessments. The other treaties and arrangements, both multi- and bilateral, concluded towards the end of the cold war were the 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles, the United Nations Register of Conventional Arms, the 1990 Threshold Test Ban Treaty, the 1976 Peaceful Nuclear Explosions Treaty, the 1992 Treaty on Open Skies, and—of particular importance from the verification point of view—the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty) and the 1992 CFE-1A Agreement. All of them included verification methods that would have been deemed unacceptable during the cold war. With a few exceptions, all function well and have made possible further progress in important disarmament fields, like the ban on chemical weapons and on nuclear weapon tests, and the development of verification systems.

## III. Lessons of the past

There are many lessons to be drawn from a comparison of verification experiences during the 40 years of arms control negotiations after World War II with those of the decade after the Stockholm Document, which marks the beginning of the end of the cold war. The most important lesson is that there can be no agreement on verification of disarmament where it is taken as a political demand rather than a legitimate and indispensable part of arms control or dis-

armament verification. However, the de-politicization of verification will only be possible if and when general political relations are based on dialectics of 'non-antagonistic contradictions', where different interests and views are not based on ideological beliefs and are not pursued in order to achieve one-sided advantages. Only then will the endeavour of negotiating, implementing and verifying an agreement be a truly cooperative one.

The value of a general political climate of cooperation is visible particularly in the fact that the most far-reaching verification mechanisms were achieved in the European context, formerly a focus of the East–West conflict and now an area of growing stability and cooperation. While Europe benefited most from the improvement of international relations, progress in arms control verification is seen on a global scale, although still circumscribed by existing political cleavages between various groups of states, in particular along the North–South divide.

The second lesson of the cold war period is the better understanding of the value of transparency in the arms control process. Any verification of compliance is an application of means and methods of opening states' military, industrial or organizational systems to other states or jointly established institutions, and thus is a transparency measure in itself. However, being based on a specific agreement, this transparency is only partial, concentrated on a given subject. The narrower the scope of the verification, the lesser its benign transparency effect on the general perception of openness among the parties to the agreement. Conversely, when transparency in military systems and, even better, in security policies of states is a general feature of relations, verification of compliance is easier and perceived as relatively less intrusive. When a disarmament agreement is preceded by mutual or general exchanges on the security and military doctrines of states, by disclosure of procurement plans, by public elucidation of political intentions and objectives, and so on, verification activities only add to overall confidence and trust.

Generally, transparency renders arms control cooperation and implementation of disarmament agreements more irreversible, even in time of political crisis and worsening relations. Clandestine re-armament is incompatible with states' transparent and cooperative security relations.

Specifically, transparency enables a change of function of verification from a measure to deter and detect violation of an agreement to a measure of positive confirmation of expected behaviour, conducive to further improvement of interstate relations. In this way transparency helps states to revert from a classic 'security dilemma', in which one's military security is an insecurity for others, to a continuous mutual security assurance. Relations based on such a premise can better withstand natural fluctuations in the political atmosphere, and disarmament agreements have a better chance to survive even a serious international crisis.

Verification of compliance can never be foolproof. There are always misperceptions of commitments, different interpretations, and many technical difficulties in the fulfilment of obligations and monitoring of these processes.

Thus, as is apparent from the experience of past decades, the process of verifying compliance needs constant validation (review), consultation, improvement of the system (methods and means), and continuous exchange of ideas and information among parties; it must also embody a way to settle disputes concerning compliance. It is up to an individual state party to fulfil its commitments in the best way possible and in good faith. The degree of compliance of other states is also a matter of the sovereign judgement of a state. However, verification should not be left solely in the hands of individual states. It must be a cooperative process, involving all parties on an equal footing, disregarding their technical potential. This means that the process should include the possibility of assistance to those who have legitimate difficulties in meeting certain technical or organizational standards mandated by an agreement.

The above observation leads directly to the next 'lesson' concerning the benefits of institutionalization of the verification process. Institutionalization need not be tantamount to expensive bureaucracy and extensive procedural regulations. What is of importance is the existence of a common organ or venue, established by an agreement, where parties may in a systematic, continuous, often standardized way exchange information, submit requests for clarifications or assistance, and organize joint efforts to ensure and check compliance. Joint institutions serving in the verification process take a large share of the verification 'burden' from the shoulders of individual states, making the validation of verification procedures and findings less susceptible to political controversies. The use of jointly established mechanisms for verification facilitates the establishment of common technological, legal and procedural standards. It makes the use of information obtained by some states through their NTM of observation more objective. Institutionalization of verification fosters the appearance of a wider group of international experts, professionally linked to the successful implementation of an agreement. By connecting various national organs responsible for the implementation of agreed measures, the joint effort of verification, epitomized by a joint organization or institution, increases the efficiency of these organs. During the past decade several 'institutions' of verification, in the broad meaning of the term, were established by individual states and on a multilateral basis. Some of them work on a permanent basis, while others operate periodically, according to the provisions of the agreements they serve. Some have a single area of responsibility, while others have a wide range of tasks.

Yet another lesson to be drawn from past experiences with verification of disarmament concerns the value of the NTM of observation in arms control or disarmament, particularly in the multilateral setting. The steadily increasing long-distance resolution of these technical means, or their precision of observation, elevated them in the 1970s to a position of powerful verification means in the bilateral agreements on strategic weapons. In a number of cases they were also taken as a helpful assurance of the detection of violations in the multilateral framework. However, the findings of such means of detection cannot be scrutinized by the international community without either disclosure

of their sources or application of other, more conventional methods of verification. Lacking an objective validation, the findings of such means, even when they disclose real violations, can easily be contradicted by a transgressor and rarely create a basis for international response. The national technical means cannot be shared with all parties to an agreement. With a vast difference in the technical potential of different nations, the reliance on these means would be discriminatory for some countries and thus unsuitable as a common mechanism of verification. The NTM of observation, once a source of a breakthrough in strategic disarmament, remain useful as means of national intelligence, serving as a background for other legitimate verification mechanisms and as an ultimate deterrent against violation of disarmament agreements.

Finally, the synergistic effect of various verification methods, both in terms of efficiency in checking compliance and in terms of the political effects of verification, should be mentioned. Technically, synergy among various methods and means of verification may be achieved already in a single arms control area covered by a given treaty. In this case these multiple technical means of observation, checking and accounting cover different features of the controlled item or activity. Even if the object of verification is not covered in its totality, the interaction between methods of checking compliance gives a high degree of assurance that unlawful acts cannot be carried out undetected. When a state is a party to several agreements, covering a large part of its military potential and thus permitting a number of verification regimes to function side by side, their synergistic effect is much larger than the total sum of the individual systems. Some of them entail disclosure of general data across various sectors of military potentials; others are concentrated on a single activity or weapon system. While specialized in the agreed area, the network of verification mechanisms produces an overall picture of states' policies, budgets, technological developments and military activities from which one can draw conclusions also about other, less well-known aspects of states' behaviour. In such a case circumvention of a state's obligations becomes nearly impossible or, at least, very uncertain and expensive.

The technical interaction of different verification systems, in other words, their efficiency, grows with their number—that is, with the increase of the comprehensiveness of disarmament, both in terms of the areas covered by it and in terms of the number of states participating in it. Similar interaction may be noted in the political effect of the growing variety of verification systems, accepted by states as safeguards provided to other states parties that they are living up to their commitments. Once a state resolves to open up, on a reciprocal basis, a part of its sovereign affairs to the scrutiny of others, it is politically easier to expand the area of transparency, and the political benefits of such behaviour, in terms of improved relations, are easier to see. In short, the political effect of verification synergy is measured by growing mutual confidence and trust.

The relationship between the political and technical synergistic effects of expanded verification systems has a direct bearing on the problem of intru-

siveness of verification. Once a yardstick of reliable and strong verification regimes, it is seen now in a completely different way. When the mutual confidence of the parties to an agreement was lacking, the best safeguard for their security seemed to be an all-encompassing, multi-layer and thus costly verification system. High intrusiveness of verification was on the one hand a panacea for the lack of trust and, on the other hand, often a reason to refuse the agreement. Highly intrusive systems of verification are, however, sometimes incompatible with the protection of legitimate industrial or state secrets and often are beyond the technological and financial reach of the poorer nations. The positive influences of the synergy of verification help to alleviate these contradictions and help to achieve the required level of efficiency without having to resort to excessive intrusiveness and incur excessive costs.

#### IV. Problems ahead

It is apparent that the past decade brought significant progress in the general understanding of the workings of disarmament verification and in acceptance of the requirements of adequate verification for successful implementation of disarmament agreements. Generally speaking, verification became a normal, 'natural' element of any non-unilateral undertaking of states in the area of disarmament.

Does this mean that we have approached an era of negotiations on the reduction of military potentials in which verification will be considered only from its technical and legal parameters and will cease to raise political controversies? Does this mean that verification is no longer a real or perceived obstacle to reaching disarmament agreements? Does it mean that the general technological progress in verification systems permits universal application of the most sophisticated means and methods? Does it mean that we can ensure efficient verification of any disarmament measure? Regrettably, a closer look at today's and future problems of disarmament and verification brings a negative answer to each of these questions.

The reasons for such a pessimistic outlook are, as in the past, mainly of a political nature, although no longer resembling the old East–West controversy. The breakthroughs in verification of the past decade's disarmament agreements materialized in the context of European relations, which include also the two great nuclear weapon states. This context may be characterized as a sphere of relations based on a new concept of 'cooperative security'. Interstate relations within this sphere are highly regulated by commonly established rules. The security interests of states are pursued without detriment to the security of others. The role of military force has decreased in comparison to other elements of national power. The internal policies of states, particularly their political, economic, social and legal systems, are based on common standards and are open to the scrutiny of the entire community.

Arms control and disarmament agreements are part and parcel of the cooperative security system, and verification is just one additional venue of the overall cooperation. It may be assumed that, unless the system is destroyed by unforeseen circumstances, any future disarmament agreements, regional or global, will faithfully and effectively be implemented and verified by the states belonging to it.

However, even the European security system is not comprehensive. Several regions of Europe, notably the Balkans and several post-Soviet areas on its rim, are, and will remain for the foreseeable future, in a state of internal and interstate conflict. It will be difficult to establish there and sustain a disarmament regime of any kind and to hope for its proper verification. To achieve this would require the concerted action of all states in the vicinity of hotbeds of conflict, with serious expense and efforts, often against the will of indigenous political forces.

The system of cooperative security, conducive to effective verification of disarmament, is clearly one of the 'peace dividends' bestowed on the countries of the northern hemisphere, all belonging or aspiring to the post-industrial community of nations. This system is not yet and may not be for years to come applicable to the rest of the globe. The North-South divide has many contradictions, among them the approach to disarmament and its recommended focus. While the North is concerned primarily with weapon proliferation and with the desire to lessen the economic burden of the military budgets of the developing states, the South sees these concerns as a proof of unequal treatment and misperception. Located in volatile regions, often struggling to assert their sovereignty, many states of the southern hemisphere do not see the urgency of disarmament and have no resources to invest in verification systems. When engaged in disarmament negotiations they stress the importance of restrictions on the supplier side of the arms trade, on the illicit arms trade, on the threat of the spread of light arms, on the restrictive aspects of measures to control the dissemination of dual-use high-level technology, and so on. Not without reason, they point to the discriminatory character of some existing arms control measures, like the NPT, and the military domination of the industrialized states. A number of states belonging to the developing world do not agree with the arguments about the dangers of chemical or biological weapons, seeing in them a cheap and efficient way to counterbalance the industrialized world, which is armed with nuclear weapons. Moreover, being concerned first and foremost with their economic and technological retardation, they often see disarmament negotiations as a convenient leverage against the rich states of the North to obtain concessions in other, economic or political, domains.

Notwithstanding all these differences, the majority of the developing countries do agree that the world, and they themselves, will be better off with smaller military budgets, smaller armies and a restricted technological arms race and without the danger of the proliferation of weapons of mass destruction. Once persuaded through negotiations, they certainly can be counted as



willing to deliver on their obligations. However, their reservations about entering into far-reaching disarmament may be well justified by their technical, organizational, financial or professional inability to guarantee full participation in the verification system. It is up to the industrialized states and to the international organizations, including those specializing in verification, to offer an acceptable remedy for this difficulty.

A new feature of contemporary world politics is the 'failed states', that is, countries where central authority has ceased to function partially or totally, their internal order has crumbled, and their economy is in crisis. Several such states appeared in the past decade in Europe; they also exist in the other parts of the globe. The failed states are appearing predominantly as a harbinger or consequence of deep internal political crisis and/or armed conflict within or around them. Their negative influence on regional stability can be significant. Notwithstanding other, perhaps more pressing and significant, issues for the states concerned, one of the consequences of these states' inability to exert internal order may be inadvertent or unauthorized misconduct of state organs, industrial groups or other non-state actors in a process of implementation of an arms control treaty's provisions. In particular, they can easily become a source of or an area of transit for the illicit arms trade or a convenient location for illegal arms production.

The failed states can cause temporary and unintentional problems in the implementation of some arms control agreements. However, a much more serious concern for the international community is the states pursuing a determined, well-planned and organized but, at the same time, clandestine policy that is in contradiction with commitments assumed by them under a disarmament or arms control treaty. This rare case of deceitful policy is usually in line with the externally anti-status quo policy and internally undemocratic policy of such a state, often referred to as a 'rogue state'. Its contravention of arms control commitments is thus only a part of a wider policy of non-acceptance of generally recognized rules of international law or behaviour, and the commitments undertaken at some earlier time are seen as an obstacle to upgraded military power, the most important tool of this policy. As the policy is centrally controlled and well planned, the activity that is in breach of treaty obligations is well disguised and difficult to disclose and prove, although the verification system designed to disclose violations in 'normal' conditions may be permitted to work.

Such a case of officially (government-) sanctioned, surreptitious breach of legal obligations was at the core of the cold war demands for 'full proof' verification. However, both then and now, such demands are nearly impossible to satisfy and, in reality, need not be met. Modern verification systems usually include enough intrusiveness, including inspection on demand (the old 'anytime, anywhere' formula), not to allow any militarily meaningful violation to remain undetected for long. The problem of safeguarding the proper implementation of an agreement in the case of a rogue state is thus not ver-

ification itself but the international response, first, to the suspicion of a breach and, second, to the proven act of such a breach.

In the first type of response, we are dealing with a basically uncooperative government; thus the mechanisms for response envisaged in a given treaty for such a situation usually break down, quickly transforming the whole issue into a hot political controversy. On the other hand, the verification foreseen in a treaty may well be too specific, too narrow in scope, to ever be able to detect a deliberate evasion. Moreover, to serve as an unchallenged basis for any international response verification must provide clear, undisputed evidence. Ad hoc augmentation of the capabilities of a verification system, if foreseen by the treaty—for example, by ‘inspection on challenge’—either is unproductive or, less probably, leads to disclosure of violation. If the augmentation required is well above the level prescribed by the treaty, the uncooperative attitude of the state in question will make it an excessive and unacceptable political demand.

Both the disclosure of violation and the refusal of cooperation present the serious question of international political and legal response. Most arms control treaties include a clause foreseeing a possibility of withdrawal from the treaty for more or less unspecified reasons of ‘vital security’. This may or may not be caused by a gross violation committed by other states. This measure of ‘last resort’ has, so far, never been applied in the domain of arms control. Moreover, according to the 1969 Vienna Convention on the Law of Treaties, a breach by one party does not constitute legal grounds for other parties to abrogate the treaty. Agreements often delegate the case of serious breach to the UN Security Council and its decision. What action is to be decided, if at all, depends on the cohesion and resolve of the five powers with a veto. The experience of the past decade is not very encouraging in this respect. Even if the Security Council decided on a measure, such as economic sanctions or political condemnation, this would most probably not change the behaviour of the state in question.

Shall we thus leave the issue of international response to violations in the hands of the few most powerful states which are able to exert pressure, including military force, on the rogue state? Can the recently appearing tendency for international intervention not approved by the UN Security Council but supported by the majority of democratic states, possessing decisive military power and claiming the high moral grounds of ‘cooperative security’, be a proper deterrence to the unlawful and dangerous behaviour of some states? The answer depends, perhaps, on the character of the arms control violation itself: whether it involves weapons of mass destruction and thus has strategic consequences or whether it is a breach of a lesser type. In any case, this tendency may have profound effects on the functioning of the UN, the future workings of international law and international relations as a whole.

The visible inadequacy of international procedures designed to respond decisively, that is, by enforcing a return to full compliance, may undermine not only the agreement being violated but also the validity of arms control and

disarmament efforts as a whole. The entire rationale of verification of compliance may be put in doubt if it cannot serve as a basis and a trigger for corrective action. Instead of the often costly and cumbersome verification procedures, some may argue, the responses to violation may be based solely on a *realpolitik* approach, that is, on a threat of coercive action, decided by a state or group of states according to their own perception of security requirements, without waiting for the legitimization of such action by the UN or another international organization, depending on the formal verification procedures.

This reasoning has, of course, a major flaw. Its application on the international scene would inevitably lead either to anarchy or to a dictate of the most powerful. Any effective international response to a violation would need to be as universal as possible. The requirement of universality demands a normative system of behaviour, to which all states parties may ascribe, as well as an agreed mechanism for supervision of compliance with the norms. A verification system helps to generate acceptable norms of behaviour among states, which is important as a basis for international political consensus, without which joint response to violation is not effective. Thus the problem with international responses to violation of arms control and disarmament agreements is not located within verification itself but in the inadequacy of the existing international system. Good verification cannot help to improve the functioning of the system, but effective reaction of the international system to violations would certainly strengthen the value of verification.

One more political phenomenon, that is, the perennial issue of the inequality of arms control commitments between the five nuclear weapon states and the rest of the international community, must be discussed to complete the picture of forthcoming difficulties with arms control verification.

Despite their direct and decisive involvement in the arms control processes of the past half-century, the nuclear weapon states (excluding China) were subjected to international/multilateral verification mechanisms as late as the beginning of the 1990s in the European context (the CFE Treaty and the Vienna Documents on CSBMs) and all five accepted such mechanisms only when the CWC entered into force in 1997. Additionally, four of these powers fall under the operation of the Treaty on Open Skies, and two—France and the UK—may be covered, if they ratify the treaty they have signed, by a verification system of the 1997 Anti-Personnel Mines Convention. There is also a prospect of inclusion of these powers into the future additional verification protocol to the BTWC. As for the best-armed states of the world, their exposure to direct international (multinational) verification is minimal. Most poignantly, their nuclear arsenals, together with their vast nuclear weapon complexes, are not transparent to the outside world. On the other hand, they possess the technological capabilities for remote sensing and participate in a number of agreements and international undertakings—like the NPT, the Wassenaar Arrangement, the Zangger Committee, the Nuclear Suppliers Group, the Australia Group or the Missile Technology Control Regime—all of which permit them to observe, verify and assess the behaviour of others in a

relatively complete way. Furthermore, as the difficulties with verification of the CWC in the USA indicate, it is not all that certain how the great military powers will behave once they are obliged to accept more intrusive international verification methods, particularly when they are applied in the nuclear area.

The situation described above reflects the inequality of states in a world in which security and stability are still based on nuclear weapons—inequality of which the verification aspect is only a lesser element. This long-term inequality, although it is organically embedded in the structures and mechanisms of today's international relations, will always be questioned and rejected by many states. It may become, at best, an obstacle to progress in disarmament and, much worse, a trigger and justification for a reversal of the disarmament process. A possible breakthrough in these dilemmas is promised by the discussions on a measure to ban the production of fissile material (the Fissile Material Cut-off Treaty). Such an agreement, covering the nuclear and non-nuclear states alike, would help to diminish the perception of 'double standards' in arms control and verification. As it seems to be a technically complex issue, verification of such a cut-off would certainly require intrusive inspections and accounting, as well as the setting up of technical standards and a robust international cooperative structure to monitor compliance. Such verification, as it would operate in the most sensitive domain, could drastically improve the international cooperative spirit in general.

## V. Conclusion

At the core of all the past and future problems of the verification of arms control and disarmament are political factors. The general political context in which treaties are negotiated and implemented is decisive in shaping the technical parameters of verification and thus its efficiency. While it is true that the old political obstacles to successful arms control verification are receding, new ones, linked to the North–South divide, are on the rise. It may therefore be assumed that the spread of the 'cooperative security' type of relationship among states on a global scale will be conducive to further disarmament and its effective verification.

There will certainly be a host of difficult technical obstacles on the way to achieving satisfactory assurance of compliance with future arms control and disarmament agreements, be it arms trade restrictions, control of small arms production, a ban on the production of fissile material, or proliferation of banned weapons and their delivery vehicles. All these difficulties will, however, be relatively easy to overcome if the right political conditions exist. One of the ways to overcome technical difficulties must be purposeful cooperation

and assistance to the less technologically advanced and poorer nations, which we wish to join in the verification efforts.

Cooperative security stresses the equality of states under international law and reciprocity in international commitments. This includes arms control and hence its verification. The existing perception of inequality in this respect may disturb the furthering of the goal of global reduction of military potentials.

The best verification is obtained when it works in synergy among many different systems, established by various agreements. Thus universality of participation in disarmament measures, whether in the regional or global framework, as well as their comprehensiveness make verification easier and more effective.

The main problem of today's arms control and disarmament implementation is not verification itself, but the international response to violations. Inadequacy of the international system in this respect may undermine the whole disarmament process.

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## 24. Compliance and non-compliance with treaties: inducements and coercion in the arms control process

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*István Gyarmati*

### I. Introduction

Arms control treaties are part of international law. The instruments available to enforce their full implementation and to redress eventual anomalies are the same. However, most arms control treaties—the better ones—contain provisions for information exchange and verification. Accordingly, there are some more objective criteria for a judgement as to whether or not a treaty is observed by its parties.

This is, nonetheless, a very difficult task. Parties violating a treaty normally do not admit to violations, except in cases when violation occurs as a result of misperception or misjudgement. Cheating is a very serious international ‘offence’ and states are—understandably—extremely hesitant to admit to cheating. Most treaties contain a provision for withdrawal if the treaty has been seriously violated. However, withdrawal only makes the situation worse: discontinuing a treaty means that even its partial implementation becomes impossible, let alone the hope or prospects for its full implementation.

States facing a violation of an arms control treaty also face the extremely difficult dilemma of what to do. The means available are very limited, except for when a state is ready, willing and able to use means outside the treaty to exert pressure. This is the subject of the analysis presented below.

### II. The CFE Treaty

The Treaty on Conventional Armed Forces in Europe (CFE Treaty), signed in Paris on 19 November 1990, is one of the most comprehensive and important arms control treaties in history.<sup>1</sup> It was, nevertheless, negotiated surprisingly fast, between March 1989 and November 1990. It was only due to the specific circumstances and political situation that it could be concluded so quickly. Some experts and even more politicians think that, with the dissolution of the Warsaw Pact and the Soviet Union (not to mention Czechoslovakia), this treaty lost its importance. I am convinced that the treaty has not lost its importance.<sup>2</sup> It is remarkable that it has survived so many changes during its

<sup>1</sup> For the text of the 1990 CFE Treaty see *SIPRI Yearbook 1991: World Armaments and Disarmament* (Oxford University Press: Oxford, 1991), pp. 461–74.

<sup>2</sup> In my capacity as the head of the Hungarian delegation and one of the negotiators of the treaty I recognize that my opinion could be biased.

10 years of existence and still remains one of the cornerstones of European security. The negotiations on its adaptation were justified, especially now that the Czech Republic, Hungary and Poland have joined NATO. These changes, however, do not make the treaty obsolete, and especially its information exchange and verification measures—subject to the following analysis—remain completely valid and applicable.

The treaty provides for an extensive exchange of information (notifications) on *inter alia* maximum levels of holdings of treaty-limited equipment (TLE) (Article VII), reduction liabilities and locations of reduction sites (Article VIII).

In Article XIII, paragraph 3, the treaty determines that ‘Each State Party shall be responsible for its own information’. These provisions mean that states parties to the treaty undertook to inform each other of important data on their conventional armed forces within the area of application and assumed responsibility for these data. This serves as the basis for verification of these data and, at the same time, creates the legal basis upon which states can be held responsible for violations.

The treaty also provides for verification. An important question is always: What can and should be verified? In the case of the CFE Treaty, the treaty offers an answer.

#### **Article XIV**

For the purpose of ensuring verification of compliance with the provisions of this Treaty, each State Party shall have the right to conduct, and the obligation to accept, within the area of application, inspections in accordance with the provisions of the Protocol on Inspection.

2. The purpose of such inspections shall be:

(A) to verify, on the basis of the information provided pursuant to the Protocol on Information Exchange, the compliance of States Parties with the numerical limitations . . .

(B) to monitor the process of reduction of battle tanks, armoured combat vehicles, artillery, combat aircraft and attack helicopters . . .

(C) to monitor the certification of recategorised multi-purpose attack helicopters and reclassified combat-capable trainer aircraft . . .

There is, however, a certain ambiguity in these provisions. One interpretation would suggest that the purpose of verification is to verify that all the provisions of the treaty are being observed. This is, of course, a little too broad an interpretation, for how could one verify that the provisions relating to, for example, definitions are observed? Even with the more acceptable interpretation, however, which would suggest that only those provisions should be verified which relate to limitations and reductions, a question remains open: Is it the information provided that should be verified or the assumed number of TLE? If it is the assumed number of TLE, this would mean that even the information provided should be verified. If it is the information provided, which is what the treaty suggests when it says that verification should be

carried out ‘on the basis of the information provided’, then how can doubts about the reliability of the information provided be ruled out and/or clarified?

This question proved very relevant right at the beginning. At the very first information exchange—actually carried out a day before the treaty was signed—the Soviet Union used an interpretation which was unacceptable for most other states parties. The Soviet Union said that since naval forces are excluded from the treaty this means that naval aircraft and coastal forces (artillery) are also excluded, and under this pretext did not provide information on several hundred TLE.

We faced the very difficult dilemma of how to convince the Soviet Union that we considered this a clear violation of the treaty and how to move them to change their interpretation and to correct the information. The answer was not easily found: only long months of negotiations both multilaterally in Vienna and bilaterally—especially between the USA and the USSR—led to a common understanding.

The treaty itself implicitly recognized that such a contradiction was possible when it provided for the use of means of verification other than the agreed cooperative ones within the treaty.

#### **Article XV**

1. For the purpose of ensuring verification of compliance with the provisions of this Treaty, a State Party shall have the right to use . . . national or multinational technical means of verification at its disposal . . .

2. A State Party shall not interfere with national or multinational technical means of verification of another State Party operating in accordance with paragraph 1 of this Article.

3. A State Party shall not use concealment measures that impede verification of compliance with the provisions of this Treaty by national or multinational technical means of verification of another State Party . . .

There are also provisions for clarification of eventual misunderstandings and disagreements.

#### **Article XVI**

1. To promote the objectives and implementation of the provisions of this Treaty, the States Parties hereby establish a Joint Consultative Group.

2. Within the framework of the Joint Consultative Group, the States Parties shall: (A) address questions relating to compliance with or possible circumvention of the provisions of this Treaty;

...

6. Nothing in this Article shall be deemed to prohibit or restrict any State Party from requesting information from or undertaking consultations with other States Parties on matters relating to this Treaty and its implementation in channels or fora other than the Joint Consultative Group.

It was also clearly recognized that situations could arise in which the parties cannot come to an agreement.



**Article XIX**

...  
 2. Each State Party shall, in exercising its national sovereignty, have the right to withdraw from this Treaty if it decides that extraordinary events related to the subject matter of this Treaty have jeopardised its supreme interests. A State Party intending to withdraw shall give notice of its decision to do so to the Depositary and to all other States Parties. Such notice shall be given at least 150 days prior to the intended withdrawal from this Treaty. It shall include a statement of the extraordinary events the State Party regards as having jeopardised its supreme interests.

3. Each State Party shall, in particular, in exercising its national sovereignty, have the right to withdraw from this Treaty if another State Party increases its holdings in battle tanks, armoured combat vehicles, artillery, combat aircraft or attack helicopters, as defined in Article II, which are outside the scope of the limitations of this Treaty, in such proportions as to pose an obvious threat to the balance of forces within the area of application.

The conclusion relevant to this subject is that the drafters of the CFE Treaty recognized that disagreements over the interpretation or implementation of the treaty might arise and that their solution for such disagreements would need specific measures and forums to address them. They also recognized that in some cases disagreements could prove unsolvable; accordingly, states parties must be given the possibility to seek the modification of the treaty, or, if this proves to be impossible, the right to withdraw from the treaty.

It is, however, also implicit in the treaty that its framework alone is not considered adequate to address problems of non-compliance. This became obvious right after the signing of the treaty, when the Soviet Union declared its holdings based on a very strange interpretation of the treaty, that nobody else shared. The Soviet Union argued that the treaty did not cover naval assets so, accordingly, none of the TLE assigned to the Soviet Navy was subject to reductions and limitations.

This was a clear violation of the text and the spirit of the treaty. All other parties declared their disagreement, but none sought to convene a special conference, let alone withdraw from the treaty. Instead, consultations started in order to clarify the situation. The Joint Consultative Group brought up the issue, but from the very beginning it was clear that it was not the right place to seek a solution. The Soviet delegation only repeated its arguments and—according to the best Soviet traditions—accused everyone else of cheating.

Real negotiations took place outside the framework of the treaty, as usual, on a bilateral basis between the USA and the USSR. As usual, everyone condemned this, but, as usual, everyone accepted the outcome. It was a sign of new times, however, that others also engaged in negotiations with the Soviet Union, but the solution—if the agreement reached can be called that—was reached bilaterally.

It must be acknowledged that the USA kept its NATO allies—more or less—informed. However, all other parties to the treaty were kept out of the negotiations.

Similarly, other Soviet/Russian violations of the treaty were discussed and resolved—or not resolved, but tolerated—outside the framework of the treaty. It is true, however, that the solution found was approved formally by the instruments provided for in the treaty.

What is the conclusion? Is it right to conclude that treaty instruments are unnecessary? Definitely not. One must acknowledge, however, that in many cases pure legal instruments in international relations are not sufficient; they need additional help to find solutions, but they are almost always needed to make these solutions possible and also to make them, in the end, legal. This is perhaps not what real lawyers dream of, but it is certainly the best available and still, in most cases, a workable solution.

### III. Conclusion

The enforcement of international law is extremely difficult. In most cases—especially in the case of arms control treaties—the only possibility within the treaty is consultations and, should consultations not produce results, withdrawal. However, withdrawal is a difficult concept. If a state party feels threatened by partial implementation of a given treaty it will certainly feel even worse without the treaty. Therefore, withdrawal can in many cases backfire and cause more problems for the party which withdraws—eventually even doing a favour to the party violating the treaty.

Therefore, the real possibilities lie outside the treaty (which is often the case with other international treaties as well). Any arms control treaty is a part of a texture of interstate relations, which are more or less important for both/all parties. Violations of an arms control treaty unavoidably have a negative effect on all the relations between or among states. It is therefore possible to convince a state to review its behaviour within an arms control treaty by certain inducements, if it is ready to comply, or retaliation in other areas, should it not change its behaviour.

Inducements can be manifold. In the case of the Soviet Union, and also Russia, Western states consequently reward it with money in terms of credits or assistance. Such behaviour, however, raises many questions. The first question is: How much can you change by such rewards? Is it possible to determine what has been done as a result of the ‘rewards’ and what happened for other reasons? Is it, accordingly, possible to determine whether the reward has really worked? The answer is, in most cases, negative—it is very difficult to establish a clear link between such rewards and good behaviour, especially with regard to the implementation of arms control treaties.

The second, even more intriguing, question is: How useful is it to offer rewards for good behaviour? Does it not raise the temptation to cheat and then earn the rewards for redressing this behaviour? Does it not encourage states to earn money by these means?

It seems that these practices are counterproductive and do not bring the necessary results. Not only is it in principle incorrect to reward misbehaviour but it is also misleading.

The third conclusion is that redressing anomalies in the implementation of arms control treaties is, mostly, a bilateral task. Countries interested in the full implementation of a treaty and having the necessary means to influence the behaviour of the state violating the treaty, or the ones who do and indeed must undertake steps bilaterally, and in a coordinated manner, do the convincing work. In doing so they should use the means of coercion more than rewards, since rewarding violations of international law—even through rewarding the redressing of those violations—can encourage states to violate commitments for rewards. The means of coercion can be different. The best way is to threaten to discontinue existing cooperation programmes (loans, most-favoured-nation status, etc.), but more harsh means should not be ruled out. In some cases rewards can also be offered, especially in cases when violation is not a political decision but is due to certain objective circumstances (lack of money to implement certain provisions, etc.).

As mentioned above, international law is very difficult terrain. It basically works if and when all parties are interested in its implementation. Only states with firm democratic values—of which the rule of law is an important element in both their internal and external policy—think that fulfilment of commitments is a value in itself. In most cases, however, problems arise in relation to states for which the rule of law is not the most important guiding principle internally: one cannot expect a different attitude externally. Therefore, in many cases, and mostly in difficult state-to-state relations, the implementation of international law requires determination. This is especially true for arms control treaties, which in many cases are entered into—at least by some—half-heartedly, against the will of military establishments. However, it can be done, as evidenced by the CFE Treaty.

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## 25. Conventional arms control agreements: issues of compliance

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*Zdzislaw Lachowski*

### I. Introduction

The aim of this paper is to review compliance issues that have arisen in connection with the implementation of the major conventional arms control agreements—the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty) and the Vienna Documents on Confidence- and Security-Building Measures (CSBMs), and one subregional arrangement, the 1996 Florence Agreement for the former Yugoslavia. Each of the regimes has a special advisory mechanism or structure set up by the states parties or participants which deals with questions relating to compliance: the Joint Consultative Group (JCG) for the CFE Treaty; the Forum for Security Co-operation (FSC) for CSBMs; and the Sub-Regional Consultative Commission (SRCC) for the Florence Agreement.

In the 1990s, various problems of circumvention, violation of and non-compliance with agreements have emerged, caused by different military, political, and security factors and situations. The favourable international climate has considerably affected both the responses and the solutions to those failures. It is worthwhile to review major issues of non-compliance and the ways in which the international community has sought to redress individual situations in order to see what kind of challenges face the conventional arms control regime and what are the chances of meeting them effectively. The paper focuses on compliance issues within the Organization for Security and Co-operation in Europe (OSCE) area because of its rich experience in this regard. Other out-of-Europe major conventional arms control agreements have been reached in Central Asia, such as those between China, Kazakhstan, Kyrgyzstan, Russia and Tajikistan on confidence-building measures and on reductions of military forces in border areas (the first trial inspection under the terms of this treaty was carried out in 1999).

### II. Circumvention of the CFE Treaty

Along the road from signature to ratification of the CFE Treaty (1990–92) two major events took place. Both were attempts to evade the treaty requirements and save military equipment from coming under the reduction axe. These were: (a) the massive relocations of Soviet equipment from Central and Eastern Europe, which resulted in serious discrepancies between the Western esti-

mates and the Soviet data (and, consequently, a much lower number of inspections); and (b) the resubordination of substantial numbers of Soviet tanks, armoured combat vehicles and artillery to units not subject to treaty ceilings and inspections.

The first data exchange, on the eve of the signing of the CFE Treaty, showed serious discrepancies between the numbers of holdings that the Soviet Union had earlier notified and the current ones. After more than half a year of stalemates, clarifications and difficult negotiations between the Soviet Union and the United States, they arrived at a compromise and the USSR agreed to issue two statements on 14 June 1991: a legally binding one and a political one. The legally binding Soviet Government statement dealt with the resubordination of three motorized rifle divisions to the naval infantry and coastal defence forces, exempt from the purview of the treaty. Under the face-saving terms of this statement, the USSR undertook to additionally reduce almost 3800 items of treaty-limited equipment (TLE) in the categories of battle tanks, armoured combat vehicles and pieces of artillery from those units. In its political statement, the USSR admitted the withdrawal of 57 300 pieces of conventional armaments beyond the Urals in 1989–90. The Soviet Union pledged to destroy or convert an additional 14 500 TLE (tanks, armoured combat vehicles and artillery pieces) from among the conventional armaments and equipment stationed in the Asian part of the Soviet Union.

### III. Reduction non-compliance

Reductions constitute the central part of arms control and disarmament agreements. Thus much attention has been drawn to the compliance of parties with that part of implementation. In this context, the CFE Treaty was in the focus, because of both its pioneering role and its scope. Implementation of the Florence Agreement also ran into several complications, data discrepancies and attempts to evade reductions; however, at the end of the reduction process, all the parties were generally in compliance with their obligations, with some minor disputes which have not been detrimental to security in the region (the former Yugoslavia).

By the 16 November 1995 CFE deadline, several states parties had still not met some treaty commitments and these remained unfulfilled in subsequent years. The NATO states completed their reductions on time. The non-NATO states, however, had major problems resulting from the magnitude of reductions and the high cost of destruction, which was frequently raised by some former Warsaw Treaty Organization states.

The break-up of the Soviet Union in December 1991 led to a series of moves towards the accommodation of the CFE regime to the new situation. Although the former Soviet republics had agreed to TLE allocations under the terms of the 1992 Oslo Document, they were unable to agree on how to share out the former Soviet responsibility for weapon destruction (the combined

notified reduction liabilities of these states were at that time about 3500 pieces fewer than those of the Soviet Union). This was difficult for several reasons: some of the former Soviet equipment turned over by Russia to the newly independent states was unusable or derelict; other equipment had been lost (i.e., seized or stolen) to non-governmental rebel groups; and some had been destroyed in the wars and armed hostilities under way in the Caucasus region (in CFE jargon, they are called unaccounted-for and uncontrolled TLE). The Tashkent Agreement of 15 May 1992 set out the division of the former Soviet CFE obligations and entitlements. The JCG Extraordinary Conference, held in Oslo on 5 June 1992, made legal both the entry of the new republics into the treaty regime and their acceptance of all the obligations and entitlements of the former USSR. Nevertheless, there still exists the discrepancy of 1970 TLE items between actual levels and the aggregate amount of TLE that eight former Soviet republics were committed to scrap or convert based on Soviet data at the signature of the treaty.

*Russia.* Although it had met the overall reduction goals, Russia still had the greatest number of liabilities. At the end of the reduction process it had regional shortfalls in the destruction of conventional armaments and equipment beyond the Urals (some 9000 items), having destroyed only one-third of its liabilities, and in naval infantry and coastal defence equipment (owing to the unresolved dispute with Ukraine over the Black Sea Fleet division and the status of the Sevastopol base). Russia also failed to meet the flank ceilings. Regarding the liabilities beyond the Urals (not subject to verification) Russia undertook to demonstrate that holdings on its territory had been destroyed or rendered militarily unusable. It pledged to pursue the reduction goal together with Kazakhstan and Uzbekistan with the aim of completion by 2000. Subsequent visits to destruction sites beyond the Urals allowed other countries' teams to verify that Russia had been abiding by the terms of its pledge. Another sensitive problem was that of the Russian holdings deployed in Armenia, Georgia and Moldova, partly to avoid reduction. Russia has approached the three governments on that problem, but with no conclusive result.

*Belarus.* Belarus failed to reach the original, November 1995, goal and the second, April 1996, deadline agreed by the CFE Joint Consultative Group. The Belarus Government had promised to get rid of the remaining equipment by the time of the 1996 CFE Treaty Review Conference but failed to make good on its commitment. This CFE party was declared to have completed its reductions as of 1 January 1997.

*Ukraine.* Ukraine was reported to have had excess equipment in active-duty units, including that assigned to the Black Sea Fleet, over which it was in dispute with Russia. Control over naval infantry and coastal defence holdings, under their joint command as part of the Black Sea Fleet, continued to present the main obstacle to implementation by Russia and Ukraine. The issue was eventually resolved in 1999.

*The Caucasus region.* The three Caucasian states, entangled in a web of civil wars, ethnic conflicts and domestic crises, have come under criticism for failing to resolve the problem of their 'unaccounted-for and uncontrolled' TLE. At the end of the reduction process, Armenia had surplus armoured combat vehicles and Azerbaijan claimed that it could not account for more than 700 TLE items lost to or possessed by rebel forces in Nagorno-Karabakh. Georgia had also been declared as not in compliance with the treaty because of its inability to report its holdings on time owing to the civil war.

#### IV. The flank dispute

The flank zone was created to prevent equipment being pulled back from the central zone from being amassed in the 'flank' areas facing the states located in the outermost areas of the treaty application. The treaty limited the number of categories of TLE that may be deployed in the flank zone to three: tanks, armoured combat vehicles and artillery. The role of the flank zones has changed in an essential way since they were agreed. Formerly a rear area of the USSR, the southern part of the flank now includes Russia's forward line of defence, facing the conflict-ridden Caucasus region and growing Islamic radicalism. These reasons were cited in Russian claims that the relevant treaty provisions should be modified since they were no longer adequate for Russian security requirements. However, Russia has never invoked the *rebus sic stantibus* clause in its efforts to make up for the disadvantage.

In 1992–95 (the CFE reduction period) the flank issue fell victim to legal rigour and political inflexibility. Because of Western intransigence, Russia's demands were long dismissed at the JCG or referred to the future CFE Review Conference; at the same time the military build-up in the Caucasus region was either neglected or merely deplored. Russia, in turn, deliberately and cynically conducted a *fait accompli* policy of default on reductions and even strengthened its military presence in the region. It was only in the last months before the CFE reduction deadline that the NATO states decided to look for face-saving solutions to remedy the situation. Since the map was not an integral part of the treaty, it was argued that redrawing it would not require a new ratification process. Russian non-compliance with Article V was dubbed a 'technical' failure.

On 17 November 1995 the JCG agreed the basic elements of an approach to a solution of the flank question. Any revisions were to be signed and formally adopted at the first Review Conference, held in 1996. The 1996 Flank Document retained a special regime for the former flank zone while introducing a number of changes, mainly excluding parts of the flank zone from its regime. Russia also agreed to freeze its holdings of weapons at the levels current at the time of the agreement until the new limits came into effect on 31 May 1999.

Since that date Russia has remained in breach of the Flank Document. Its holdings of TLE in the flank zone exceeded the allowed limits. With a view to

finalizing the CFE adaptation talks, which had been under way since 1997, NATO decided to tolerate this case of non-compliance, but without recognizing it as lawful. The 1999 Agreement on Adaptation of the CFE Treaty simplified the complex structure of the flank status and met the Russian demands halfway. Regrettably, this was done at a time when Russia was grossly violating its obligations under the original and the adapted treaty.

## V. The conflict in Chechnya and CFE compliance

A major issue of non-compliance arose in the autumn of 1999. Russia informed NATO and other parties in October that it had been forced to exceed its flank limits on TLE and send more ground forces to the North Caucasus in its ongoing struggle with Chechen rebels. Russia invoked a 'supreme national interest' clause, not envisaged explicitly for such a situation in the treaty itself,<sup>1</sup> in notifying the other 29 states parties of the action. It expected understanding from its counterparts in the face of the seriousness of the situation.

The US Administration took a pragmatic view, recognizing Russia's transparency about exceeding the treaty limits in Chechnya and asking Russian leaders to 'demonstrate their intent' to return soon to compliance. The NATO countries sought a high-level political declaration from Russia regarding the new, adapted CFE agreement. On 1–2 November 1999, Russian Prime Minister Vladimir Putin gave assurances that his country would reduce its military presence in Chechnya to levels envisaged in the treaty as soon as the 'necessary conditions' are created; he failed, however, to provide any deadline for the withdrawal or for coming into compliance with the treaty. Putin promised that Russia would provide more information about its forces through additional transparency measures and allowing more inspections in the North Caucasus. Inspectors, however, would only be allowed in when it 'becomes possible to give them necessary security guarantees'. This reservation was not satisfactory to other states parties. Some questioned the value of attending a summit conference as long as the breach of the treaty and other OSCE provisions continued, and proposed that the meeting be postponed. Norway, however, holding the OSCE Chairmanship-in-Office, announced on 4 November that the Istanbul OSCE summit meeting would take place.

The limits for heavy ground equipment were reportedly exceeded by some 60 per cent. In the autumn of 1999 Russia notified that it had fielded nearly 200 tanks, 2150 armoured combat vehicles and 300 artillery pieces in excess of the sub-ceilings in the Flank Document.

<sup>1</sup> Article XIX of the CFE Treaty provides for invoking supreme interests only when a state decides to withdraw from the treaty (the notice should be given 150 days in advance). Article VII allows changes in the maximum levels for holdings of a state party (to be notified at least 90 days in advance), provided it is preceded or accompanied by a corresponding reduction of TLE by one or more states 'belonging to the same group of states parties'.



Assuming that the Russian Government would sign the Agreement on Adaptation of the CFE Treaty, the European states chose not to isolate Russia but to credit it with goodwill at the Istanbul summit meeting. They decided to adopt the new agreement in the belief that failure to do so would undermine security and stability in many regions. The European states assumed that the time between signature and ratification of the Agreement on Adaptation would enable Russia to restore its compliance within the new parameters.

In a communiqué issued at the end of 1999, NATO ministers, while stressing their concern about continued Russian non-compliance with the flank limitations, noted Moscow's pledge to comply with all the provisions and commitments of the CFE Treaty 'as soon as possible' and to provide maximum transparency regarding its forces in the North Caucasus in accordance with both the CFE Treaty and the Vienna Document 1999, and its assurances that Russian non-compliance with the flank limits will be of a temporary nature.

## VI. Unwanted/unlawful presence of foreign armed forces

The issue of Russian armed forces stationed in Georgia and Moldova came to the fore once again in early 1999. For several years both countries had demanded full respect for their sovereignty regarding temporary deployments on their territory or reallocation of equipment entitlements under the 1992 Tashkent Agreement. It was in the context of the conflict in Chechnya in late 1999 that Russia found itself under strong political and negotiating pressure to show, although it did so reluctantly, a measure of flexibility and goodwill with regard to the two cases.

*Withdrawal of Russian TLE from Georgia.* The four bases on Georgian territory have existed by virtue of Georgia's unratified agreement of 1994 with Russia. Georgia insisted on closing down two Russian military bases. The other two bases are likely to be used by Russia for some time. The Georgian authorities are afraid that closing the latter bases would have an adverse impact on Georgia's economy and on ethnic relations within the country; eventually, the remaining bases should also be dismantled. As the OSCE Istanbul summit meeting drew near, Georgian–Russian relations worsened. The difficult negotiations between the two states lasted until the last days before the summit meeting. On 17 November they signed a joint statement to the effect that Russia would reduce its heavy ground weapons on Georgian territory to the equivalent of a brigade by the end of 2000. During that year, both sides were also to complete negotiations on the duration and modalities of the functioning of the two bases and the Russian military facilities in Georgia. However, the withdrawal did not start until August 2000. At the same time, Russia renewed suggestions that it retain the bases for a longer period.

*Withdrawal of Russian TLE from Moldova.* The situation in Moldova was different. The former (now c. 2500-strong) 14th Russian Army is still present

in the Transdnister region. In July 1994 Moldova proclaimed permanent neutrality under its new constitution, and since then it has refused to host foreign forces on its territory. The October 1994 agreement with Russia on the withdrawal of Russian troops, however, has not entered into force.

Russia reportedly suggested that the group of Russian troops should be granted the status of permanent military base. Moldova rejected the proposal on constitutional grounds, reiterating that it cannot allow even temporary deployments of foreign conventional armaments on its territory. On the eve of the 1999 OSCE summit meeting in Istanbul, the Moldovan authorities asked a number of Western countries and European organizations to support the withdrawal of Russian troops and the evacuation of munitions. It is expected that financial assistance will be rendered to Russian servicemen being withdrawn from the region. In 2000, however, Russia was once again reported to be making the settlement of the Transdnister conflict a condition for the withdrawal of its troops and armaments from Moldova.

At the summit meeting, Moldova once again renounced the right to receive a temporary deployment on its territory, while Russia pledged to withdraw and/or destroy Russian treaty-limited conventional armaments and equipment by the end of 2001 and pull out its troops by the end of 2002. By the end of 2000, the withdrawal had not yet begun, with Russia demonstrating its reluctance to do so.

Throughout the CFE adaptation negotiations the long-standing argument simmered over (unwanted) foreign military presence on the territory of a state party (concerning especially Georgia and Moldova). Along with these countries' bilateral agreements with Russia on force withdrawals, the Agreement on Adaptation provides in Article I that TLE of a state party 'shall only be present on the territory of another State Party in conformity with international law, the explicit consent of the host State Party, or a relevant resolution of the United Nations Security Council'. The consent of the host state must be given in advance and be reflected through the appropriate notifications under the Protocol on Information Exchange. As a result, the adapted treaty potentially enhances regional stability and the sovereignty of Russia's neighbours.

*The Armenian–Azerbaijani dispute.* Armenia and Azerbaijan continue to exceed their maximum levels of TLE in one or more categories. Neither state has ever declared a proper reduction obligation or correctly carried out the reduction required by the treaty, and they continue to accuse each other of exceeding their CFE weapon ceilings. Armenian troops and equipment remain on the territory of Azerbaijan, in Nagorno-Karabakh. The latter, a self-proclaimed republic which is not recognized by the international community, possesses armed forces not accounted for under the CFE Treaty. In February 1999 Azerbaijan reiterated its claims that Armenia's military cooperation with Russia was leading to growing instability in the region and resulted in 'aggressive' supplies of modern equipment, including TLE, to that country, exceeding CFE Treaty limits. (International groups of inspectors found Armenia to be in compliance with the information provided under the treaty's

Protocol on Notification and Exchange of Information.) Claiming that the combination of Armenia's armed forces with those of Nagorno-Karabakh plus Russia's military bases in Armenia upset the balance of forces in the region, Azerbaijan demanded to be given higher TLE ceilings. Consequently, Azerbaijan refused until the last days of the negotiations to declare its projected national and territorial limits for inclusion in the 1999 Agreement on Adaptation.

## VII. CSBMs and the new security environment

Although the European CSBM arrangements are not embodied in legal documents, they are politically binding international commitments of military significance. During the cold war their aim was to help prevent surprise attack and provide a measure of confidence between two adversarial politico-military blocs. Therefore, CSBM implementation was a litmus test of goodwill and cooperation between the participants in the field of military security. After 1989, with their scope markedly expanded and content substantiated, the measures have worked in the changed environment of partnership, mutual reassurance and cooperative security. For a long time their weakness was that they addressed state-to-state relations, while security contingencies were taking on a domestic character. The incompatibility was redressed to some degree only in 1999, when the participants agreed on a set of principles for measures tailored to regional needs.

Implementation of the Vienna Document encounters obstacles on the part of some participants which have an eroding effect on the confidence- and security-building regime. For the most part, this concerns some of the post-Soviet states with a rather poor experience in complex CSBM procedures and scant resources to meet all the requirements of compliance. Another aspect is that CSBM operation, basically, has taken place in 'fair-weather' conditions, that is, in peacetime (the Federal Republic of Yugoslavia, FRY, a CSBM participant, was suspended from the CSCE in 1992 after its aggressive conduct in the Balkans). Therefore, the other, compliant participants have been fairly liberal in their criticism and ready to render assistance to their partners.

After the suspension of the FRY from the CSBM regime, another compliance test came in late 1994, during the first war in Chechnya. Starting its military activities in that region in December 1994, Russia failed to notify to other participants the transfer of its armed forces to places of troop concentration. Moscow claimed that CSBM provisions on notification and the invitation of observation were inapplicable during the domestic crisis and argued that transparency about the conflict was 'ensured by the media coverage'. The aim of the military action in Chechnya, Russian arguments went, was to defend Russia's territorial integrity and it did not endanger the security of any state. These arguments were questioned and rejected by other CSCE/OSCE delegations. They stressed the applicability of CSBMs to internal crisis situations and

considered media coverage to be no substitute for Vienna Document notification. The claim that no external security threat existed was considered counter to the principle of indivisibility of security in the application area. Nevertheless, the discussions at the annual implementation assessment meeting held in early 1995 were conducted in an open and cooperative spirit, with Russia accepting the relevance of CSBMs with regard to the Chechen issue. In this context, what was more ominous was Russia's non-respect of the provisions of the 1994 Code of Conduct on Politico-Military Aspects of Security concerning the non-use of armed forces in domestic security missions and the proportionality rule in such missions.

The question whether CSBMs are of relevance in 'foul-weather' conditions was again thrown into stark relief in 1999. The Kosovo crisis and the war in Chechnya were litmus tests for the viability of CSBMs *'inter arma'*.

*CSBMs and the Kosovo crisis.* During the Kosovo conflict, on 19 May 1999 the Russian delegation lodged a protest in the FSC about the inspection carried out in the Former Yugoslav Republic of Macedonia (FYROM) earlier that month. It complained that the Russian inspection team had been denied access to all areas and facilities where NATO formations and units were stationed, in contravention of the Vienna Document provisions. Later Russia stated that it encountered similar obstacles during its inspection visit to Albania in mid-May, claiming that: (a) the air flight of Russian inspectors to the specified area was unduly delayed and directed to a point of entry other than that designated; (b) their inspection teams were denied inspection from the air; (c) their inspection teams were not allowed into areas where US armed forces and equipment were concentrated; and (d) their inspection teams were refused access to briefings by US commanders of formations in Albania and the FYROM. Russia also claimed that there were more than 13 000 NATO troops in the FYROM; thus they were subject to observation. The USA had allegedly failed to notify the concentration in advance, and observers were invited only after the Russian inspection team had informed the participating states about its work in the area.

NATO, Albania and the FYROM responded that the 'hostile environment' justified denial of access on the basis of exceptions for 'areas or sensitive points' under the Vienna Document for safety, security and force protection reasons. NATO claimed that its main function in the FYROM was to provide humanitarian assistance. The Atlantic Alliance had hoped that the Russian team would inspect the work at refugee centres, but since they were interested in areas where 'difficult and potentially dangerous' conditions existed they were shown a training exercise involving NATO forces. Both Albania and the FYROM pleaded technical reasons for not providing a helicopter for inspection purposes (those available allegedly did not meet the required safety standards). Changing the entry points for inspectors was said to have been done in order to accommodate ongoing humanitarian airlift operations. Concerning non-compliance with the observation threshold, the FYROM stated that it would issue invitations at a later date. Eventually, the Russian observation

visit took place in July 1999, well after the end of the NATO campaign in the FRY.

According to observers, the FYROM incident arose because the US command perceived the implementation of CSBMs during the 1999 Kosovo crisis as a threat to NATO 'operational security'. The USA alleged that, because Russia could hand over (apparently to Belgrade) sensitive information on NATO military equipment in the vicinity of the FRY, it had to postpone the inspection. Other NATO states, such as Germany and the UK, allowed their commanders in the FYROM to provide information to the Russian inspectors. Germany, in particular, found US arguments about the sensitive equipment in the FYROM rather unconvincing, since the operation there served clearly humanitarian needs. The sophisticated US Apache helicopters stationed in Albania were a sensitive security issue for the USA.

*CSBMs and the Chechnya war.* Another challenge to compliance with the Vienna Document 1994 arose in the autumn of 1999. In October Russia confirmed that its concentration of forces in the North Caucasus had exceeded some of the thresholds, and it provided additional information in late October and in February 2000. Unlike the NATO concentrations in Albania and the FYROM, the Russian concentration in Chechnya comprised forces engaged in war. Russia claimed that it had demonstrated exceptional goodwill and transparency in providing updated information on the conditions of military operations against the Chechen 'bandits and terrorists'. The NATO states demanded that Russia provide not only numbers but also details on the purpose, level of command, time frame and envisaged area of the operation, and other relevant information. Western countries repeatedly urged Russia to update its October information and allow an observation visit in accordance with the Vienna Document. The feasibility and security of an observation inside Chechnya during the war were, however, questionable. Russia allowed a German team to inspect areas adjacent to Chechnya in February 2000, but it was only in June 2000 that an OSCE multinational observation team was allowed to visit the Russian units stationed in the 'combat zone' in Chechnya. As during the first Chechnya war, in 1994, NATO and European Union member states have pointed out that, apart from its CSBM non-compliance, Russia has probably violated the provisions of Chapters VI, VII and VIII of the Code of Conduct on Politico-Military Aspects of Security, especially in respect of taking due care to avoid injury to civilians and their property and to avoid the indiscriminate and disproportionate use of force.

## VIII. 'Suspension' of agreement implementation

Compliance in the Balkan region, where arms control arrangements were imposed from outside in the aftermath of the 1992–95 war in Bosnia and Herzegovina, is monitored and assisted by the international community. Of

late, observance of the obligations undertaken has been disturbed by the military and political developments in and around the FRY.

As a result of the start of NATO's air intervention, on 31 March 1999 the FRY 'suspended' implementation of the Florence Agreement on Yugoslav territory. Suspension is not envisaged in the agreement, however. (Article XII provides for withdrawal 42 months after entry into force, i.e., on 14 December 1999 at the earliest. The notice of the decision to withdraw should be made at least 150 days prior to withdrawal.)

These events affected the activities planned earlier, especially the schedule of inspections. Nevertheless, two informal meetings of the SRCC were held, and the parties agreed to continue implementation of the agreement and convene a formal SRCC meeting once the FRY retracted its decision on suspension. An invitation to the FRY to carry out inspections on the territory of the other parties without obligations of reciprocity was accepted on the condition that the FRY participate in informal meetings of the SRCC (the end of the bombing campaign against Yugoslavia in early June made the offer redundant). On 19 July the FRY pledged to resume its implementation of the Florence Agreement. On 28 August it notified termination of the suspension of its participation in the implementation of the Article IV agreement and agreed to fully resume its participation in the SRCC in September 1999.

Because of the Kosovo crises and because it had not been invited to a conference to review the Florence Agreement scheduled for June 2000, the FRY decided on 25 May, for the second time, to halt its participation in the regime. Its decision was prompted by the USA, which opposed inviting the FRY to the conference with the aim of ostracizing the Milosevic Government internationally. The Yugoslav move also led the Republika Srpska to shun an invitation to take part in an informal review meeting, which was planned to be held in place of the postponed review conference. In late July both the FRY and the Republika Srpska resumed their participation in the implementation of the Florence Agreement, and the review conference was rescheduled for late October 2000.

## IX. Conclusion

This overview of the compliance record in the field of conventional arms control underscores the relevance of states conforming with their legal and political commitments. While the place and role of arms control have changed over the past decade, respect for the norms of and compliance with treaties remain the *sine qua non* of international law and order. Otherwise, the regimes of international law risk gradual erosion as a whole. It is a truism, worth recalling here, that the respect for prior commitments is indispensable for entering into new ones. In other words, the evolution of future norms, rules and principles should be firmly rooted in the observance of current ones.

Most of the compliance issues have had to do with either the cold war legacy or qualitatively new contingencies. Some of them have been resolved, some remain outstanding. The new rules and tenets of international life in the OSCE area—cooperative and inclusive security, mutual reassurance and partnership—allow states to take a reasonable approach, instead of reacting rashly as was done in the past, to each case of non-compliance. The former bloc confrontation and threats of surprise attack are gone, and the political atmosphere is conducive to broader cooperation and confidence. Therefore, the room for manoeuvre has widened and states are equipped with a growing panoply of tools, including monitoring, consultation, verification, dispute settlement and enforcement mechanisms, to more effectively handle compliance issues.

Compliance is not a static condition that can be pursued with the aim of achieving absolute perfection at some stage of treaty implementation. Therefore, it should be measured not so much by the progress towards a definite end as by the efficiency of mechanisms for dealing with cases of abuse and breaches. Certainly, further institutional and procedural steps should be promoted; however, this cannot be done for its own sake, at the cost of the usability and relevance of the means. One must bear in mind that compliance is primarily a part and a function of the complex web of wider political processes, interests and differences. Events in 1999 showed that, for example, CSBMs and related mechanisms can play a limited ‘foul-weather’ role in dealing with crises and conflicts. The main problem is not so much a lack of measures and procedures as an unwillingness to use them in a full or timely manner or to activate them for risk reduction.

Concerns arise with regard to the equal treatment of states. There have been many cases of a big power’s interests or those of an alliance taking precedence over conformity with international law or commitments. The conflicts in Chechnya and over Kosovo bore witness to such blatant cases. However legitimate the quest for treating in an equal manner a non-compliant big power and a small or medium-size state ‘of concern’, the reality still is not as just as it should be.

Evidently, new challenges and risks put a new strain on the status quo. Responses to intra-state crises and conflicts are the most exigent ones. It is domestic upheavals that create situations which may be incompatible with the existing international legal frameworks. In this context, the gradual adaptation of the CFE Treaty and the fairly regular modernization of the Vienna Document with a view to better handling new, especially regional and subregional, contingencies are good examples of response on the part of the international community. New states also have problems ‘socializing’ the new arms control obligations they have entered into; along with censure and encouragement to conform with the agreements, the new states need continuous enhanced assistance from other more experienced participants of the regimes.

In the post-cold war period conventional arms control has made remarkable progress towards adapting to the new situation and removing sources of possible non-compliance. The interest of all participants of the OSCE-area arms control regimes in sustaining the regimes has been enhanced. On the other hand, the volatile situations in the southern and south-eastern parts of Europe and Central Asia tend to undermine the political will to comply with undertaken commitments and call for further work towards improving the implementation of arms control accords.



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Part V

The SIPRI Arms Control Survey

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## 26. Conventional arms control in Europe

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*Zdzislaw Lachowski*

### I. Introduction

The conventional arms control regime in Europe is the most advanced in the world by far. It reached a peak in the early 1990s with the conclusion of several ‘grand accords’: the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty), the 1992 Treaty on Open Skies (which has not yet entered into force) and the 1992 CFE-1A Agreement. The ‘soft’ arms control Vienna Documents on Confidence- and Security-Building Measures (CSBMs) of 1990, 1992, 1994 and 1999 were also elaborated and adopted within the framework of the Conference on/Organization for Security and Co-operation in Europe (CSCE/OSCE); traditional CSBMs were developed and new ones added in these four documents. All these agreements served effectively to close the cold war era in the military field and are commonly considered a cornerstone of European security and military stability. In addition, in the wake of the conflict in Bosnia and Herzegovina, a subregional arms control arrangement for the former Yugoslavia—the Florence Agreement—was reached in 1996.

### II. The CFE Treaty

#### **The main elements of the treaty**

The CFE states parties agreed to reduce to equal ceilings the holdings of each military bloc (‘group of states’) in five categories of land-based weapons:

1. *Battle tanks*, 20 000.
2. *Armoured combat vehicles* (ACVs), 30 000. ACVs include armoured personnel carriers (APCs), the more capable armoured infantry fighting vehicles (AIFVs) and heavy armoured combat vehicles (HACVs). Sub-ceilings of 18 000 for each side were also agreed for AIFVs and HACVs; of these no more than 1500 can be HACVs.
3. *Artillery pieces*, 20 000. These include guns, howitzers, mortars and multiple rocket launchers of 100-mm calibre and above.
4. *Combat aircraft*, 6800. In a separate declaration the two blocs agreed to limit land-based combat naval aircraft to 430 on each side, with no single state allowed more than 400.
5. *Attack helicopters*, 2000.

These five categories of treaty-limited equipment (TLE) contained a total of more than 240 different types of equipment. The states parties declared in November 1990 an aggregate total of 201 005 TLE items; by November 1995, the end of the reduction process, the total number was to be below 155 000 items.

The *area of application* extends from the Atlantic to the Urals (ATTU zone), excluding the three Baltic states. The territory of each of the two alliances—the North Atlantic Treaty Organization (NATO) and the Warsaw Treaty Organization (WTO)—was divided into a system of nested *zones* (central, expanded central and extended) plus a flank zone, with regional *limitations* designed to avoid excessive force concentrations on the line of confrontation between the two blocs. The important element was the national *entitlements*—maximum national levels for holdings (MNLHs), as agreed within each group. The *sufficiency* rule ensured that no single state could possess more than approximately one-third of the total strength of both groups of states. *Stabilizing measures*, including the storage rule for weapons in designated permanent storage sites (DPSSs), contribute to regional confidence and stability. The *Joint Consultative Group* (JCG) was established to ensure the operation of and deal with problems that might arise from implementation of the treaty.

### **Implementation of the treaty**

The CFE Treaty was signed in Paris on 19 November 1990 by the 22 members of the two alliances with the aim of establishing quantitative parity in conventional weapons, after the fruitless 15-year Mutual and Balanced Force Reduction Talks of the cold war period.

Because of the discrepancies between the numbers of holdings that the Soviet Union had previously notified and the figures it reported later, it consented to issue two statements on 14 June 1991. The first, a legally binding statement, dealt with the resubordination of three motorized rifle divisions to the naval infantry and coastal defence forces: the USSR agreed to have its maximum number of holdings in the ATTU zone diminished by the number it would have in the naval infantry and coastal defence forces after the end of the reduction process. In addition, it undertook to reduce 3783 pieces of heavy ground armaments from those units. The second Soviet CFE-related statement, which was politically binding, committed the USSR (and later the post-Soviet states, mainly Russia) to destroy 14 500 items of ground military equipment outside the ATTU zone.

The CFE Treaty entered into force provisionally on 17 July 1992 and formally on 9 November 1992. Originally, 23 states participated in the CFE negotiation; 22 states became parties to the treaty, and the number increased to 29 after the dissolution of the Soviet Union (the three Baltic states dissociated themselves from the CFE Treaty in October 1991). In May–June 1992 the former Soviet CFE obligations and entitlements were undertaken by eight new

post-Soviet states. After the split of Czechoslovakia, the number rose to 30 in 1993.

The main reduction of excess TLE was carried out in three phases from 1992 to 1995. By 1 January 1999, nearly 51 700 pieces of conventional armaments and equipment within the ATTU zone had been scrapped or converted to civilian use by the states parties, with many parties reducing their holdings to lower levels than those required.

By the 16 November 1995 reduction deadline, several parties had still not fulfilled some of their treaty commitments, and this is still the case for some of them. The eight former Soviet republics have made little or no progress on meeting their collective CFE Treaty obligation to declare and complete TLE reductions equal to those which the Soviet Union would have been obliged to complete (the shortfall is now *c.* 2000 TLE items).

Progress was made in the JCG in developing measures to tackle the problem of unaccounted-for and uncontrolled TLE in the former Soviet republics, that is, seized, derelict or unusable equipment.

Russia met the overall reduction goals, but it still had the greatest number of liabilities. At the end of the reduction process it had regional shortfalls in naval infantry and coastal defence equipment (owing to the unresolved dispute with Ukraine over the Black Sea Fleet) and in the destruction of conventional armaments and equipment beyond the Urals. Ukraine has *de facto* fulfilled its part of the commitments under the CFE-related Soviet legal statement of 14 June 1991. Russia has claimed to have done so as well, although other partners have expressed their doubts. At the first CFE Treaty Review Conference (15–31 May 1996) Russia pledged, under the politically binding 1991 Soviet statement, to destroy or render militarily unusable TLE holdings on its territory beyond the Urals by the year 2000. However, at the end of 2000 it was not clear whether Russia had fulfilled its pledge totally. In addition, its attempts to use its Caucasian neighbours' CFE quotas were not fully successful, which contributed to its reporting difficulties.

Armenia and Azerbaijan continue to exceed their maximum levels of TLE in one or more categories. Neither state has ever declared a proper reduction obligation or duly carried out the reductions required by the treaty, and they continue to accuse each other of exceeding their CFE weapon ceilings. Armenian troops and TLE remain on the territory of Azerbaijan (in Nagorno-Karabakh) without Azerbaijani consent.

### **Implementation of the CFE-1A Agreement**

The CFE-1A Agreement, which is politically binding, set ceilings on land-based personnel in various categories of the conventional forces of the 30 states parties in the ATTU zone. The national self-declared personnel limits entered into force in parallel with the CFE Treaty limits on armaments. In the wake of cuts made by the CFE parties, 1.7 million military personnel have left

**Table 26.1.** CFE-1A Agreement ceilings and manpower holdings, 1990–2000

	Holdings Nov. 1990	CFE ceiling	Holdings Nov. 1995	Holdings Apr. 2000
NATO	2 667 772	2 791 181	2 265 792	2 009 242
Former WTO	2 802 923	2 998 000	2 150 452	1 737 144
<b>Total</b>	<b>5 470 695</b>	<b>5 789 181</b>	<b>4 416 244</b>	<b>3 746 386</b>

army ranks in the area of application, and this process continues. All the CFE parties have now set their military manpower strengths below the limits set in the agreement.

### Verification

Along with destruction, the verification of compliance—the ability to effectively monitor and verify the reduction of armaments and their maintenance at lower levels—is a central pillar of the CFE Treaty. Consequently, the treaty provides for detailed information exchanges, declared-site inspections, challenge inspections (to confirm the presence or absence of TLE), on-site monitoring of destruction (reduction inspections) and certification inspections. It was impossible to check all the so-called declared sites—precisely delimited locations containing one or more objects of verification (OOV), units holding TLE—so the negotiators agreed that it would be sufficient to inspect a portion of the declared sites based on the percentage of OOV. The first four months after the treaty's entry into force, July–November 1992, was a 'baseline validation' inspection period (based on the rate of 20 per cent of the OOV declared in the initial exchange of data). This was followed by a three-year period of reductions in which the pace of declared-site inspections slowed down to the rate of 10 per cent of OOV per year, but during which they were accompanied by reduction inspections. The third, 120-day, 'residual level validation' period (November 1995–March 1996) was again a busy time of checking the remaining equipment. Since the end of the residual validation period, declared-site inspections have continued at the rate of 15 per cent of each state's OOV per year (the 'residual period' of unlimited duration).

Challenge inspections give states the right to inspect a specific and limited area other than declared sites. Inspection quotas were applied here as well. Challenge inspections comprised not more than 15 per cent of a state's declared-site inspection obligations from the entry into force of the treaty until the end of the residual level validation period; afterwards the quota rose to 23 per cent. The inspected state could refuse an inspection for reasons of safety or security but was obliged to ensure the requesting state that there was no TLE in the specified area.

Reduction inspections allowed parties to monitor the reduction of TLE in excess of the treaty limits. There were no quotas for reduction inspections and there was no right of refusal. The fourth type of inspection, certification, was similar to reduction inspections. Its purpose was to certify that multi-purpose attack helicopters and combat-capable aircraft had been reconfigured into support helicopters and trainer aircraft. There were no quotas and there was no right of refusal for these inspections.

More than 3800 on-site inspections have taken place since 1993.

### **The flank issue**

The flank zone was designed to prevent equipment being pulled back from Central Europe from being amassed in the 'flank' areas facing the states located in the outermost areas of the treaty application zone. The treaty limited the number of TLE categories that may be deployed in the flank zone to three: tanks, ACVs and artillery.

The role of the flank zones has changed essentially since the flanks were negotiated. Previously a rear, peripheral area, the southern flank now includes Russia's forward line of defence, facing the volatile Caucasus region. Russia repeatedly claimed that relevant treaty provisions should be modified since they were no longer adequate for Russian security requirements.

In a joint statement of 17 November 1995, the 30 CFE states parties undertook to seek solutions to the flank zone problem. Any revisions were to be signed and formally adopted at the May 1996 CFE Review Conference.

The 1996 Final Document of the first Review Conference retained a special regime for the former flank zone while introducing a number of changes. It scaled down the size of the flank zone by reallocating several *oblasts* (regions) to the other CFE zones (table 26.2). The weapon limits for the smaller flank zone were not changed, while the Russian area of the former flank zone was assigned new, higher limits and Ukraine obtained new limits for the Odessa *oblast*. Russia agreed to freeze its holdings of battle tanks, ACVs and artillery at the levels current at the time of the agreement until the new limits came into effect on 31 May 1999.

Russia also obtained confirmation of its rights to temporarily deploy the three categories of weapon within and outside its territory and to reallocate the current quotas of armament under the 1992 Tashkent Agreement 'by means of free negotiations and with full respect for the sovereignty of the states parties involved'.

In return for these changes, Russia provides additional, more frequent information on its part of the former flank area, and Ukraine furnishes more data on its holdings in the Odessa *oblast*. Both states are to accept additional declared-site inspections within the regions that are now excluded. Russia also agreed to sub-ceilings on ACVs deployed in each of the regions removed from the flank zone.

**Table 26.2.** Changes in the Russian and Ukrainian entitlements in the former flank zone and the redefined flank zone

	Tanks	ACVs	Artillery
<i>Russia</i>			
Flank zone entitlements <sup>a</sup> (1990 CFE Treaty)	700	580	1 280
plus those in storage	(600)	(800)	(400)
Temporary deployments (1996 Final Document)	1 897	4 397	2 422
in original flank zone (31 May 1996–31 May 1999)			
Sub-limits in original flank zone (May 1999)	1 800	3 700 <sup>b</sup>	2 400
Territorial sub-limits for revised flank <sup>c</sup> (1999 Agreement on Adaptation)	1 300	2 140	1 680
<i>Ukraine</i>			
Flank zone entitlements <sup>d</sup> (1990 CFE Treaty)	280	350	390
plus those in storage	(400)	(–)	(500)
Territorial sub-limits for the Odessa <i>oblast</i> (1996 Final Document; 1999 Agreement on Adaptation)	400	400	350

ACV = armoured combat vehicle.

<sup>a</sup> The Leningrad and North Caucasus military districts (MDs).

<sup>b</sup> No more than 552 located within the Astrakhan and Volgograd *oblasts* (regions) respectively; no more than 310 within the eastern part of the Rostov *oblast* (as described in note *c*); and no more than 600 within the Pskov *oblast*.

<sup>c</sup> In the Leningrad MD, excluding the Pskov *oblast*; and in the North Caucasus MD, excluding: the Volgograd *oblast*; the Astrakhan *oblast*; that part of the Rostov *oblast* east of the line extending from Kushchevskaya to the Volgodonk *oblast* border, including Volgodonk; and Kushchevskaya and a narrow corridor in Krasnodar *kray* (district) leading to Kushchevskaya.

<sup>d</sup> The Odessa MD.

### Towards the adapted CFE Treaty

The December 1996 OSCE Lisbon summit meeting agreed on a document setting the terms of reference for further CFE negotiations. The adaptation talks opened in the JCG on 21 January 1997 with the aim of completing them in 1998.

On 20 February 1997 NATO submitted its concept for the treaty's adaptation to the JCG. Its main premises were abolishment of the group (bloc) structure, non-increase in total numbers of TLE within the ATTU zone, prevention of any potentially destabilizing accumulation of forces in different regions and elimination of the structure of nested zones; however, the 1996 Flank Document would be retained. Instead it was proposed that two types of ceiling would be established: (a) *national ceilings* (NCs), covering all TLE categories which each state may hold in the area of application (they would not exceed notified MNLHs, as of signature of the CFE adaptation agreement); and (b) *territorial ceilings* (TCs), derived from the current notified MNLHs, including the three categories of land-based equipment—tanks, ACVs and artillery. TCs would be set for each territorial unit. The aim of TCs would be



to enhance conventional stability by preventing any dangerous concentration of forces and helping to resolve the problem of stationed foreign forces in all states parties. NATO pledged that the total aggregate national ceilings for the ground TLE of its 16 members would be much lower under the new agreement than the current ceiling.

NATO also proposed a storage modification: states would either retain their DPSS entitlements or eliminate 80 per cent of their stored equipment entitlement and include the remainder in active units.

On 23 July 1997 the JCG approved a framework agreement on 'certain basic elements for treaty adaptation'. The parties consented to a system of national and territorial ceilings to replace the bloc-to-bloc structure, pledged restraint in maintaining military capabilities, agreed that initial NCs should not exceed MNLHs and acknowledged that the flank regime's substance would be 'maintained but reconciled' with the structure of the adapted treaty.

The CFE Treaty adaptation negotiations came to a standstill in 1998. At the OSCE ministerial meeting held in Oslo on 2–3 December 1998, the parties to the CFE Treaty agreed to set the November 1999 Istanbul OSCE summit meeting as the new deadline for completing the negotiations. In early March 1999 Russia and NATO made several concessions which facilitated a compromise by the parties on several issues, documented in the JCG decision of 30 March 1999. This also set the stage for finalizing the adaptation agreement. On 19 November 1999 two documents were signed in Istanbul by the 30 parties to the CFE Treaty: (a) the Agreement on Adaptation of the Treaty on Conventional Armed Forces in Europe, subject to ratification, and (b) the political declaration entitled the Final Act of the Conference of the States Parties to the Treaty on Conventional Armed Forces in Europe (CFE Final Act).

### **The main elements of the adapted CFE Treaty**

The Agreement on Adaptation introduces numerous amendments to the original CFE Treaty in order to adapt it to the new security situation in Europe.

The basic tenets of the agreement stand in contrast to the original treaty. Instead of rivalry and division, the principle of a common and indivisible security space underlies politico-military relations in the new Europe. The balance of power is replaced by peaceful security cooperation. A system of state-to-state limits substitutes for the pattern of balance-of-forces symmetry between two blocs (NATO vs the WTO). Finally, the exclusive character of the adapted treaty was changed: the European conventional arms control regime was declared open to other European countries.

Under the Agreement on Adaptation two state-related types of ceiling replace the now obsolete bloc structure: national ceilings and territorial ceilings, as shown in tables 26.3 and 26.4. The Agreement on Adaptation reduces the aggregate levels of heavy armaments by more than 9000 TLE items compared with the original CFE Treaty aggregate ceilings (table 26.5), although the current total number of holdings is even lower (table 26.6). Among the

**Table 26.3.** Agreed levels for the national ceilings, sub-ceilings for active units and sub-ceiling categories

State	Battle tanks	ACVs			Artillery	Aircraft	Heli-copters
		Total	Of which AIFVs+HACVs	Of which HACVs			
Armenia	220	220	135	11	285	100	50
Azerbaijan	220	220	135	11	285	100	50
Belarus (1)	1 800	2 600	1 590	130	1 615	294	80
Belgium*	300	989	600	237	288	209	46
Bulgaria	1 475	2 000	1 100	100	1 750	235	67
Canada	77	263	263	0	32	90	13
Czech Rep. (2)	957	1 367	954	69	767	230	50
Denmark *	335	336	210	17	446	82	18
France *	1 226	3 700	1 983	535	1 192	800	390
Georgia	220	220	135	11	285	100	50
Germany*	3 444	3 281	3 281	80	2 255	765	280
Greece	1 735	2 498	1 599	70	1 920	650	30
Hungary (3)	835	1 700	1 020	85	840	180	108
Iceland	0	0	0	0	0	0	0
Italy	1 267	3 127	1 970	0	1 818	618	142
Kazakhstan	50	200	0	0	100	15	20
Luxembourg	0	0	0	0	0	0	0
Moldova	210	210	130	10	250	50	50
Netherlands*	520	864	718	0	485	230	50
Norway	170	275	181	0	491	100	24
Poland (4)	1 730	2 150	1 700	107	1 610	460	130
Portugal	300	430	267	77	450	160	26
Romania	1 375	2 100	552	72	1 475	430	120
Russia* (5)	6 350	11 280	7 030	574	6 315	3 416	855
Slovakia (6)	478	683	476	34	383	100	40
Spain*	750	1 588	1 228	191	1 276	310	90
Turkey	2 795	3 120	1 993	93	3 523	750	103
Ukraine (7)	4 080	5 050	3 095	253	4 040	1 090	330
UK*	843	3 017	1 335	200	583	855	365
United States*	1 812	3 037	2 372	0	1 553	784	404

ACV = armoured combat vehicle; AIFV = armoured infantry fighting vehicle; HACV = heavy armoured combat vehicle.

\* States parties whose agreed national ceilings, contained in the table above, are lower in 2 or more equipment categories than their maximum national levels for holdings as of 1 Jan. 1997.

(1) Of which no more than 1525 tanks, 2175 ACVs and 1375 artillery pieces in active units.

(2) Of which no more than 754 tanks, 1223 ACVs and 629 artillery pieces in active units.

(3) Of which no more than 658 tanks, 1522 ACVs and 688 artillery pieces in active units.

(4) Of which no more than 1362 tanks, 1924 ACVs and 1319 artillery pieces in active units.

(5) Of which no more than 5575 tanks, 11 280 ACVs and 5505 artillery pieces in active units.

(6) Of which no more than 376 tanks, 611 ACVs and 314 artillery pieces in active units.

(7) Of which no more than 3130 tanks, 4350 ACVs and 3240 artillery pieces in active units.

*Source:* Protocol on National Ceilings for Conventional Armaments and Equipment limited by the Treaty on Conventional Armed Forces in Europe, Agreement on Adaptation of the Treaty on Conventional Armed Forces in Europe, 19 Nov. 1999.

**Table 26.4.** Agreed levels for the territorial ceilings and territorial sub-ceilings

State	Tanks	ACVs	Artillery
Armenia (3)(4)	220	220	285
Azerbaijan (3)(4)	220	220	285
Belarus (5)	1 800	2 600	1 615
Belgium	544	1 505	497
Bulgaria (3)(4)	1 475	2 000	1 750
Czech Republic (5)	957	1 367	767
Denmark (5)	353	336	503
France	1 306	3 820	1 292
Georgia (3)(4)	220	220	285
Germany (5)	4 704	6 772	3 407
Greece	1 735	2 498	1 920
Hungary (3)(4)	835	1 700	840
Iceland (3)(4)	0	0	0
Italy (5)	642	3 805	2 062
Kazakhstan (5)	50	200	100
Luxembourg (5)	143	174	47
Moldova (3)(4)	210	210	250
Netherlands (5)	809	1 220	651
Norway (3)(4)	170	282	557
Poland (5)	1 730	2 150	1 610
Portugal (5)	300	430	450
Romania (3)(4)	1 375	2 100	1 475
Russia (5)	6 350	11 280	6 315
—of which (1)(3)(4)	1 300	2 140	1 680
Slovakia (5)	478	683	383
Spain (5)	891	2 047	1 370
Turkey (3)(4)	2 795	3 120	3 523
Ukraine (5)	4 080	5 050	4 040
—of which (2)(3)(4)	400	400	350
United Kingdom (5)	843	3 029	583

(1) In the Leningrad Military District (MD), excluding the Pskov *oblast* (region); and in the North Caucasus MD, excluding: the Volgograd *oblast*; the Astrakhan *oblast*; that part of the Rostov *oblast* east of the line extending from Kushchevskaya to the Volgodonsk *oblast* border, including Volgodonsk; and Kushchevskaya and a narrow corridor in Krasnodar *kray* (district) leading to Kushchevskaya. This territorial sub-ceiling shall not be exceeded pursuant to Article VII for military exercises and temporary deployments in the category of ACVs.

(2) In the Odessa *oblast*.

(3) States parties which shall not increase their TCs or territorial sub-ceilings pursuant to Article V (5), only in conjunction with a corresponding decrease, pursuant to Article V(4) (A), in the TCs or territorial sub-ceilings of other states parties, as identified by this footnote.

(4) States parties which shall not exceed their TCs or territorial sub-ceilings pursuant to Article VII by more than 153 tanks, 241 ACVs and 140 artillery pieces.

(5) States parties which shall not exceed their TCs or territorial sub-ceilings pursuant to Article VII by more than 459 tanks, 723 ACVs and 420 artillery pieces.

*Source:* Protocol on Territorial Ceilings for Conventional Armaments and Equipment limited by the Treaty on Conventional Armed Forces in Europe, Agreement on Adaptation of the Treaty on Conventional Armed Forces in Europe, 19 Nov. 1999.

**Table 26.5.** National CFE limits under the 1990 CFE Treaty and the 1999 Agreement on Adaptation

		Tanks	ACVs	Artillery	Aircraft	Helicopters
NATO	1990	19 142	29 822	18 286	6 662	2 000
	1999 <sup>a</sup>	19 096	31 787	19 529	7 273	2 282
WTO/f. WTO	1990	20 000	30 000	20 000	6 800	2 000
	1999 <sup>b</sup>	16 478	24 783	16 783	5 930	1 712
<b>Total</b>	<b>1990</b>	<b>39 142</b>	<b>59 822</b>	<b>38 286</b>	<b>13 462</b>	<b>4 000</b>
	<b>1999</b>	<b>35 574</b>	<b>56 570</b>	<b>36 312</b>	<b>13 203</b>	<b>3 994</b>
Difference		- 3 568	- 3 252	- 1 974	- 259	- 6

ACV = armoured combat vehicle.

<sup>a</sup> Enlarged NATO '16 + 3'.

<sup>b</sup> 'Former WTO - 3'.

states that proposed significant reductions of their current entitlements, the USA offered a 42 per cent cut from its current maximum national levels for holdings (its holdings are still less than half its national limit), and Germany declared an almost 9 per cent cut. Russia proposed a reduction of 385 TLE items from its entitlement, and this part of its entitlement was given to Kazakhstan. The four Visegrad countries (the Czech Republic, Hungary, Poland and Slovakia) offered to lower their aggregate national (equal to territorial) ceilings by 1700 TLE items by 2003.

### The new structure of limitations

States parties set their own limits with the understanding that they will take 'a restrained approach, maintaining only such military capabilities . . . as are commensurate with individual or legitimate security interests'. The national limits are for each state party, covering all five categories of equipment. The NCs also retain two sub-ceilings: for active units and for sub-categories of armament (AIFVs and HACVs). Since the NATO states parties that signed the original treaty have decided to remove all their stored equipment, the sub-ceilings for the active units of member states are equal to their NCs; the three new NATO member states and non-NATO states parties have decided to retain part of their equipment in their designated DPSSs. Only states with territory in the ATTU zone have territorial ceilings: thus Canada and the USA do not have TCs. Russia and Ukraine have additional territorial sub-ceilings for their flank areas. TCs enable parties to host or receive foreign ground forces. Aircraft and helicopters are excluded from this type of limit, despite Russian pressure to include them. The main rule is that TCs will be either equal to or higher than NCs.

**Table 26.6.** CFE limits and holdings, 1990–2000

	Holdings Nov. 1990	CFE limit 1990	Holdings Nov. 1995	Holdings Jan. 2000	Adapted CFE limit 1999
Total	201 005	154 712	130 813	120 384	145 653

### *Upward revisions of national and territorial ceilings*

The future system of national and territorial ceilings will be more rigid than the original CFE Treaty's structure of limits on the TLE that may be located in and moved within large zonal areas. The 1999 Agreement on Adaptation specifies that any upward revision of the NC of one state party should be compensated by a corresponding decrease in the NC on the same TLE category of one or more other states parties. Prior notification should be made 90 days before the revision becomes effective and it should be notified to all other parties. Between the five-yearly review conferences national ceilings/sub-ceilings for active units may be increased by no more than 40 tanks, 60 ACVs and 20 artillery pieces or 20 per cent of the established NC, whichever is greater, but in no case exceeding 150 tanks, 250 ACVs and 100 artillery pieces.<sup>1</sup> For combat aircraft and attack helicopters, the upward revision numbers are 30 and 25, respectively. The raising of national ceilings/sub-ceilings for active units in excess of the permitted levels will be subject to a consensus decision by all parties. Moreover, any party with a sub-ceiling for active units may increase it provided that this is accompanied by a decrease in its NC by four items in this same category of ground TLE (i.e., for each TLE item added, four items of the same category must be eliminated).

An NC may also be decreased unilaterally by a party in any category of TLE, but this confers no right on any other state party to increase its NC.

A state party's territorial ceiling/sub-ceiling may be increased. The rule and parameters for upward revisions of TCs are similar to those for NCs: an increase will be accompanied by a corresponding decrease by another party/parties. The same parameters apply for exceeding TCs—an increase in the territorial ceiling/sub-ceiling of any category in excess of these levels will be subject to the consent of all other parties.

### *Exemptions for peace operations and forces in transit*

UN- and OSCE-mandated peace missions are exempt from the territorial ceilings/sub-ceilings of a state party on whose territory TLE necessary for the given mission is present. Parameters for force levels and the duration of

<sup>1</sup> The rationale is to prevent the smaller countries from feeling that they are discriminated against. While any party may, e.g., increase its arsenals by a maximum of 40 tanks, even if this exceeds 20% of its NC, no party may exceed the ceiling of 150 tanks.

UN/OSCE-mandated missions shall be guided by a resolution or decision of either body. Such missions must be duly notified.

In addition to the exemption from counting rules under Article III (1)(G) of the CFE Treaty ('external constraints'), Article V also makes armaments and equipment in transit within the ATTU zone exempt from the territorial ceilings/sub-ceilings of transited states parties. Several specific premises will be met: (a) territorial ceilings will not be exceeded, except as otherwise provided for in Article VII (military exercises and temporary deployments); (b) there is no numerical limit for TLE in transit to a destination outside the ATTU zone; (c) the entire transit will take no longer than 42 days; and (d) the TLE in transit will not remain on the territory of any single transited state party or on a territory with a territorial sub-ceiling for longer than 21 days.

### *Military exercises and temporary deployments*

The disadvantage of upward revisions of territorial ceilings/sub-ceilings is that they require the consent of or compensation by another state or states, resulting in a cumbersome procedure. Temporary deployments are a more expedient alternative, especially in various security contingencies. Similarly, more convenient provisions for military exercises had to be provided. The agreement ensures that both military exercises and temporary deployments do not have a destabilizing effect.

Each state party has the right to host exercises on its territory or on a territory with a territorial sub-ceiling in accordance with the Protocol on Territorial Ceilings. The number of ground TLE in excess of its territorial ceiling/sub-ceiling for a military exercise, alone or in combination with any other manoeuvre or any temporary deployment on that territory, cannot exceed the number of tanks, ACVs and artillery pieces specified for temporary deployments for each state (see below). A military exercise or successive exercises that will result in the exceeding of a territorial ceiling/sub-ceiling for more than 42 days will thereafter be considered a temporary deployment.

The Agreement on Adaptation provides for two kinds of temporary deployment in excess of TCs: (a) a 'basic' deployment up to the equivalent of a brigade (up to 153 tanks, 241 ACVs and 140 artillery pieces); and (b) in 'exceptional circumstances', a deployment in each state party outside the former flank area of up to three brigades, that is, 459 tanks, 723 ACVs and 420 artillery pieces. Explanatory reports to the JCG and regular updates are envisaged.

If a temporary deployment exceeds 153 tanks, 241 ACVs and 140 artillery pieces, a conference of states parties will be convened to explain the nature of the circumstances which have given rise to the temporary deployment. If a military exercise in conjunction with a temporary deployment causes the TC to be exceeded by more than the basic temporary deployment levels, any state party may also request the convening of a conference of states parties.

The duration of temporary deployments is not limited. If a military exercise exceeding a territorial ceiling/sub-ceiling is to last for more than 42 days, on the 43rd day, at the latest, all relevant information will be provided by the party whose ceiling has been exceeded (purpose and duration, TLE involved, total number in excess and area of deployment) and by the parties that participate in the territorial ceiling/sub-ceiling (the total number of TLE and the area of deployment). In the case of temporary deployments, within 21 days of its territorial ceiling/sub-ceiling being exceeded, a state party must provide detailed relevant information, including the anticipated duration of the deployment. Afterwards it will provide subsequent updates every 90 days.

Each state will provide notification if a cumulative increase of 30 tanks, 30 ACVs or 10 artillery pieces in excess of the number previously notified occurs.

The party whose territorial ceiling/sub-ceiling has been exceeded will inform all other parties whenever the numbers of TLE no longer exceed its ceilings.

### **The flank issue revisited**

One of the major rationales behind the adaptation of the CFE Treaty was the need for a redistribution of the Russian armed forces after the cold war. Because of its separate special status (specific limitations on ground forces, territorial constraints and additional verification measures) and the divergent views about how it should be accommodated in the new conventional arms control regime, the Article V (flank) issue had since 1993 remained the most controversial issue between Russia and NATO and other concerned states. Russia considered itself to have been unfairly treated because of the number and rigidity of the additional limitations applied to its territory and therefore demanded more equitable treatment. NATO argued that the reconciliation of the flank regime with the structure of the adapted treaty should form an integral part of the treaty adaptation.

Three former Soviet republics (Azerbaijan, Georgia and Moldova) had also been at issue with Russia over implementation of the CFE flank provisions.

Another problem compounding the situation was that two countries (Bulgaria and Romania) were seeking to leave the flank regime in their efforts to join NATO. Both countries were afraid that flank limitations on temporary deployments might adversely affect their chances of joining the alliance. Among the NATO countries, Greece remained most strongly opposed to maintaining flank limitations.

On 25 January 1999, after Russian–Turkish talks and intra-NATO consultations, an agreement was reached with respect to the southern flank. Turkey, a firm opponent of a relaxation of the flank limits, agreed to allow 2140 ACVs in Russia's revised flank areas. Moreover, all the Russian weapons in the flank areas could be deployed in active units. Although Bulgaria and Romania opposed the Russian–Turkish deal, the accord facilitated settlement of the overall flank issue.

The 30 March 1999 JCG decision set out a number of 'principles and modalities' to guide the 'maintenance and reconciliation' of the substance of the modified Article V provisions in the adapted treaty. The principles included: (a) the legally binding character of the provisions; (b) prevention of a build-up of forces; (c) initial TCs equal to initial NCs/up-to-date maximum national levels for holdings; (d) upward revision of the relevant TCs and sub-limits only through transfers among the flank states; (e) brigade-level temporary deployment limits; and (f) an enhanced regime of verification and information exchange. The modalities prescribed: (a) single sub-limits for Russia and Ukraine; (b) subordination of Russian forces in other countries to general rules regarding NCs, TCs and temporary deployments; and (c) an early solution to the reduction of Russian forces in Georgia and of the withdrawal of Russian forces from Moldova. With the exception of the issue of the Russian presence in Georgia and Moldova, all these arrangements were incorporated into the Agreement on Adaptation.

Although the flank zone's functions were retained, there is no explicit reference to a flank area in the Agreement on Adaptation. The 12 parties with territory in the former flank zone<sup>2</sup> will have the right to increase their territorial ceilings/sub-ceilings only in conjunction with a corresponding decrease in the (sub)ceilings of other parties in that area. In addition to NCs and TCs for the 12 flank states, Russia and Ukraine will have one territorial sub-ceiling each, applied to the Leningrad and North Caucasus military districts (MDs) excluding some administrative areas (Russia) and the Odessa *oblast* (Ukraine). In no case may a territorial ceiling/sub-ceiling be exceeded by more than the basic temporary deployment by these states. Outside their flank areas, Russia and Ukraine may temporarily deploy up to three brigades each.

The issues of Russian armaments and equipment abroad within the flank zone were settled in the politically binding CFE Final Act and the OSCE Summit Declaration adopted at Istanbul.

A major issue of non-compliance arose in the autumn of 1999. Russia notified that it had been forced to exceed its flank limits on TLE in the North Caucasus in its ongoing struggle with Chechen rebels. Russian Prime Minister Vladimir Putin gave assurances that his country would reduce its military presence in Chechnya to levels envisaged in the treaty as soon as the 'necessary conditions' were created. Russia promised that it would provide more information about its forces through additional transparency. Inspectors would be allowed in as soon as it 'becomes possible to give them necessary security guarantees'. In the autumn of 1999 Russia informed the JCG that it fielded some 1500 tanks, 3500 armoured combat vehicles and 2000 artillery pieces, much in excess of the sub-ceilings in the 1996 Flank Document (see table 26.2).

<sup>2</sup> Armenia, Azerbaijan, Bulgaria, Georgia, Greece, Iceland, Moldova, Norway, Romania, Russia, Turkey and Ukraine.



The Russian non-compliance notwithstanding, the other states parties decided to adopt the Agreement on Adaptation, assuming that Russia would soon conform with its obligations. At the end of 2000 Russia remained in breach of the CFE flank provisions.

### **Accommodation in Central Europe**

NATO has pledged that it will refrain from additional permanent stationing of substantial ground and air combat forces on the territory of its three new member states. It has also promised increased transparency with regard to its defence plans and programmes in the context of any future stationing of forces. Earlier plans for establishment of an enhanced stability zone were not formalized in treaty form because of the strong opposition of the Central European states, particularly Poland, to having quasi-flank limitations imposed on them. Instead, in a series of political declarations appended to the CFE Final Act, the states concerned made concessions aimed at alleviating fears arising from the enlargement of NATO.

Accordingly, Belarus, the Czech Republic, Hungary, Poland and Slovakia stated that their NCs and TCs would equal their MNLHs. Together with Germany and Ukraine they undertook not to use the mechanism for upward revisions of the territorial ceilings. Moreover, the Visegrad countries pledged to reduce their respective territorial ceilings in ground armaments and equipment through either full or partial conversion of storage entitlements over the next several years. At the same time, they all firmly reserved their right to host temporary deployments up to an equivalent of three brigades.

In response, Russia promised to show 'due restraint' regarding ground TLE and deployments in the Kaliningrad and Pskov *oblasts* and not to increase its air and ground combat forces on a permanent basis; it also reserved the option for operational reinforcement, including temporary deployments.

### **Host nation consent**

Throughout the negotiations a long-standing argument was (unwanted) foreign military presence on the territory of a state party, especially concerning Georgia and Moldova. Along with these countries' bilateral agreements with Russia on force withdrawals, as reached in the CFE Final Act and confirmed in the OSCE Summit Declaration, the Adaptation Agreement provides in Article I that the TLE of a state party 'shall only be present on the territory of another State Party in conformity with international law, the explicit consent of the host State Party, or a relevant resolution of the United Nations Security Council'. Consent of the host state must be given in advance and be reflected through appropriate notifications under the Protocol on Information Exchange. As a result, the adapted treaty enhances regional stability and the sovereignty of Russia's neighbours. NATO reaffirmed the significance of this clause in its foreign ministers' communiqué of 15 December 1999.

### Enhanced transparency

The Agreement on Adaptation builds on the CFE Treaty information and verification regime. Most of the major changes with regard to the provision of information and verification were introduced as a result of the new structure of limitations. Some changes stem from the experience of CFE Treaty implementation and the need to provide more detailed information. Other changes concern the items for which parties were seeking greater restrictions and transparency (combat aircraft and attack helicopters).

Consequently, large sections were added to or amended in the *Protocol on Notifications and Exchange of Information* with regard to the issues of transit of armaments and equipment through or within the area of application; quarterly information on the total numbers of ground and air TLE actually present in the area of application and within the territory of a state party; changes in the number of TLE items; use of the headroom between national holdings and TCs by another state party; information on military exercises and temporary deployments exceeding TCs; and information on operations in support of peace.

Information is to be furnished on the actual location of ground armaments not situated on the territory of the state party that is declared as the peacetime location. Aggregated information is also to be provided on the numbers and types of TLE items entering into or being removed from service as well as the types and numbers of TLE items having been withdrawn from the 'decommissioned and awaiting disposal' category.

In line with the 1996 Flank Document, more detailed and frequent information is demanded from Russia and Ukraine on their flank areas.

Because of past disputes over armoured ambulances (not subject to treaty limitations), information is required on overall holdings of APC ambulances and on locations housing more than 18 such items.

Under the *Protocol on Inspections*, the number of annual inspections that a state party must permit on its territory was increased from 15 to 20 per cent of its objects of verification. This is warranted by the fact of the significantly reduced number of OOV because of the large cuts in armaments and equipment carried out since 1992.

Inspections in the so-called designated areas (areas within which territorial ceilings/sub-ceilings are exceeded as a result of military exercises or temporary deployments) were added.

The matter of dividing the costs of inspections between the inspected and inspecting states was regulated, and cases of *force majeure* delaying inspections were addressed. More detailed descriptions of the area of the OOV subject to inspection or a declared site or data with regard to equipment are to be provided during a pre-inspection briefing.

Russia and Ukraine are obliged to accept a greater number of inspections with regard to their respective (flank) areas covered by territorial sub-ceilings.

Each year Russia will accept, in addition to its passive declared-site inspection quota, up to a total of 10 supplementary inspections. Ukraine will additionally accept one supplementary declared-site inspection in the Odessa *oblast*.

With regard to disposal of TLE in excess of reduction liabilities through destruction/modification, a special section was added to the *Protocol on Reductions* to make the procedures more transparent, including notification, observation visits and cooperative measures for the provision of evidence of destruction.

### III. Regional arms control in Europe

The only regional 'hard' arms control arrangement now operating below the pan-European level is the 1996 Florence Agreement on Sub-Regional Arms Control.

After six months of negotiations the Florence Agreement was signed by Bosnia and Herzegovina and its two entities (the Muslim–Croat Federation of Bosnia and Herzegovina, and the Bosnian Serb Republika Srpska), Croatia and the Federal Republic of Yugoslavia (FRY) on 14 June 1996 at the ministerial meeting of the Peace Implementation Council, set up under the 1995 Dayton Agreement. The agreement includes six protocols (on reduction, aircraft reclassification, information exchange, existing types of armaments, inspections and the Sub-Regional Consultative Commission). The agreement entered into force upon signature. It is of unlimited duration but will remain in effect for at least 42 months before any party may decide to withdraw.

#### **The Florence Agreement**

The Florence Agreement was modelled on the CFE Treaty and set numerical limits on five categories of armaments—battle tanks, ACVs, artillery pieces of 75 mm and above, combat aircraft and attack helicopters—of the ex-combatants in a ratio of 5 : 2 : 2 for the FRY, Bosnia and Herzegovina, and Croatia, respectively, and a ratio of 2 : 1 for Bosnia's two entities. AIFVs assigned to peacetime internal security forces not capable of ground combat against an external enemy are not formally limited by the agreement, but the parties agreed on maximum numbers of AIFVs to avoid circumvention of the provisions of the agreement. In separate political statements each party declared limitations on its military manpower as of 1 September 1996. Reciprocal mistrust and reluctance to reintegrate military forces were reflected in the fact that the manpower limits declared by the Federation of Bosnia and Herzegovina and the Republika Srpska did not add up to those declared by Bosnia and Herzegovina (table 26.7).

Reductions were to be effected in two phases and completed within 16 months, by 30 October 1997. By 31 December 1996 (the end of Phase I) each party was to have reduced 40 per cent of its total liabilities for artillery, aircraft and helicopters and 20 per cent of its total liabilities for tanks and

**Table 26.7.** Limitations on holdings and manpower and maximum agreed numbers for armoured infantry fighting vehicles of the five parties to the Florence Agreement

Party	Tanks	ACVs <sup>a</sup>	AIFV <sup>b</sup>	Artillery	Air-craft	Heli-copters	Man-power <sup>c</sup>
FR Yugoslavia	1 025	850	152	3 750	155	53	124 339
Croatia	410	340	76	1 500	62	21	65 000
Bosnia and Herzegovina (B&H)	410	340	76	1 500	62	21	60 000
Federation of B&H	273	227	38	1 000	41	14	55 000
Republika Srpska	137	113	38	500	21	7	56 000

<sup>a</sup> Armoured combat vehicles.

<sup>b</sup> Armoured infantry fighting vehicles are not limited by the agreement. AIFVs assigned to peacetime internal security forces, however, in excess of the maximum agreed numbers, shall constitute a portion of the permitted levels for ACVs (Article XI of the Florence Agreement).

<sup>c</sup> Manpower limits are as declared by the parties.

ACVs. By the end of Phase II each party was to have reduced all agreement-limited armaments in each of the five categories. It was estimated that some 6000 weapon items would have been destroyed by the end of the reduction period.

The limits on holdings are subject to a verification regime similar to that of the CFE Treaty. It provides for on-site monitoring of the reduction schedule and of exports of armaments limited by the agreement, extensive information exchange and notifications, intrusive inspections and an impartial international role—played by the Personal Representative of the OSCE Chairman-in-Office (CIO) or his/her designated agent(s)—to assist the parties in the implementation of the agreement and to ensure that it is implemented in good faith.

The Sub-Regional Consultative Commission (SRCC) was established to handle compliance issues and differences that might arise during implementation, to revise and draw up additional measures to enhance its workability, and to take appropriate steps in the event of dispute. The SRCC meets at least once every three months. It has the power to amend the agreement, but its decisions require consensus. The chairmanship of the commission was to rotate among the parties after 1996; in the meantime, the CIO Personal Representative agreed to act as chairman.

Information exchanged by the parties on their holdings, effective as of 1 July 1996, was the basis for the four-month baseline validation period for inspections (to 31 October 1996). The reduction period began on 1 November (parties could start reductions earlier). A four-month residual level validation period to enable the calculation of inspection quotas followed (1 November 1997–28 February 1998).

**Table 26.8.** Reductions completed under the Florence Agreement, as of 31 October 1997

Equipment	FRY	Croatia	Fed. of Bosnia & Herzegovina	Republika Srpska	<b>Total</b>
Battle tanks	422	–	–	280	<b>702</b>
ACVs	29	–	–	52	<b>81</b>
Artillery	1 090	697	2 219	1 731	<b>5 737</b>
Combat aircraft	59	–	–	1	<b>60</b>
Attack helicopters	–	–	–	–	–
<b>Total</b>	<b>1 600</b>	<b>697</b>	<b>2 219</b>	<b>2 064</b>	<b>6 580</b>

*Phase I*

The agreement was being implemented in an environment scarred by recent war and lacking in stability. The parties were pressured by external powers to agree on arms control, and the fact that three of the five parties are one state and its two entities compounded the difficulties. Western intelligence data soon revealed blatant discrepancies between declared reduction liabilities and actual stocks of heavy weapons. The Republika Srpska had tried to avoid its obligation to destroy excess tanks and artillery pieces; it was also accused of having some 2500 artillery pieces, about twice as many as the number it declared. Croatia was said to possess some 500 more artillery pieces than it reported, and the Federation of Bosnia and Herzegovina was found to have one and a half times the 2000 artillery pieces it claimed to have. Neither the inspections nor the reductions were fully implemented by the end of 1996.

Phase I of the reductions under the agreement was concluded on 31 December 1996 with the disposal of some 1700 items, predominantly heavy artillery. The FRY had reduced significantly more tanks than required. The Federation of Bosnia and Herzegovina, which began to destroy its surplus weapons only in early December, was reported to have almost completely met its Phase I liability; however, the issue of dividing the Bosnian and Croatian reduction liability had still not been resolved. The Republika Srpska ‘met’ its reduction liability by scrapping the small amounts of weapons it had notified.

*Phase II*

At the beginning of 1997 it was not clear how many weapons were held or how many should have been destroyed. Parties accused each other of: (a) under-reporting and concealing their holdings; (b) abusing exemptions under Article III (on items in the process of manufacture, used for the purposes of research and development, belonging to historical collections, or awaiting export or re-export); (c) failing to report equipment supplied under the US-sponsored Train and Equip (T&E) programme (discussed below); and (d) denying or blocking declared-site inspection rights—mainly because of the

dispute as to the right of Bosnia and Herzegovina to carry out inspections in the FRY and Croatia.

In late January 1997 the controversial Article III exceptions were agreed in principle. In March the Republika Srpska raised its reduction liability. This was welcomed as more realistic data, although according to Western estimates the Bosnian Serbs would have to dispose of a total of 2200–2300 heavy weapons to fully comply with the agreement. The Republika Srpska's delaying tactics during the reduction process were interpreted by observers as partly motivated by alarm at the ongoing T&E programme providing the Federation of Bosnia and Herzegovina with modern equipment and tactics. A new inspection plan was also adopted at the SRCC meeting, giving inspection rights to the central government of Bosnia and Herzegovina.

On 11 April Croatia announced that it had fulfilled its overall reduction obligations. It was only in June that the two forces in the Federation of Bosnia and Herzegovina agreed on the distribution of their liabilities and military personnel. Battle tanks, artillery, combat aircraft and attack helicopters were divided in a ratio of 2 : 1; ACVs in a ratio of 1.9 : 1; and military personnel in a ratio of 2.3 : 1 for the Muslim and Croat Federation army sections, respectively. The combined personnel ceiling for the Federation of Bosnia and Herzegovina was set at 45 000 troops.

In June–July the Republika Srpska, the Federation of Bosnia and Herzegovina and, later, the FRY started their Phase II reductions. The parties were assisted in their destruction procedures by teams from the Western countries.

As of the end of the reduction period (31 October) the former warring parties had destroyed a total of 6580 weapons. The reductions were even somewhat in excess of the liabilities notified by the parties to meet the limits required by the Florence Agreement. The Personal Representative of the OSCE CIO for the agreement, Ambassador Vigleik Eide, drew attention to other achievements: the establishment of an effective inspection regime (185 inspections were conducted in the period August 1996–October 1997), the routine exchange of information on military forces and the constructive working relationship within the SRCC.

### **The Train and Equip programme**

Within these limits, the parties are free to structure, equip and train their forces as they choose. The US-sponsored T&E programme, criticized by Western Europe, was to serve multiple, reinforcing purposes, including the establishment of a single Federation defence ministry and joint command; orienting Federation forces on a Western model; integrating donated equipment into the Federation force structure; reducing destabilizing foreign influences in the Federation; providing leverage for continued compliance with the 1995 Dayton Agreement; and enabling the withdrawal of the NATO-led Implementation Force (IFOR) and its successor, the Stabilization Force (SFOR), on a timely basis.

The withdrawal of all foreign forces and the alleged termination of intelligence and other military cooperation with Iran, as well as the integration of Muslim and Croat forces under a new defence law in mid-1996, made it possible to put the US-led and largely Muslim-financed rearmament programme for the Federation into effect. In July 1996 the Office of the US President outlined the T&E programme, envisaging the shipment of defence articles and services worth \$100 million. As of April 1997, 14 countries had pledged at least \$376 million in cash, equipment, training and technical support. The European Union reaffirmed its dissatisfaction over this endeavour and renewed its ban on arms transfers to the former Yugoslavia in January 1997. Russia also expressed concern about the weapon deliveries.

The rate and scope of the rearming of the Federation Army led NATO observers (as well as the Republika Srpska) to claim that the qualitative military balance had been clearly tipped in its favour. Since in reality there is no integrated Federation of Bosnia and Herzegovina force, this was to the benefit of the Muslims. The equipment they had received was far more modern than the Soviet-style equipment that the Republika Srpska forces had inherited largely from the former Yugoslav Army. In November 1997, the Government of Bosnia and Herzegovina pledged conditional support for the Republika Srpska to join the programme.

In March 1998 the UN Security Council voted to impose an arms embargo on the FRY as well as on the Albanian separatists in Kosovo. In 1998–99 the USA from time to time suspended its military assistance under the T&E programme to the Croatian Defence Council and the Federation, because of their failure to militarily integrate into the Federation's Joint Command and accept common insignia, ranks and symbols.

### **The status of implementation**

The Peace Implementation Council, meeting in Madrid on 15–16 December 1998, affirmed that military stability had been maintained throughout Bosnia and Herzegovina and that the entity armed forces (those of the Muslim–Croat Federation of Bosnia and Herzegovina and the Bosnian Serb Republika Srpska), having met in full their obligations with regard to equipment limited by the Florence Agreement, continued to comply with the military provisions of the Dayton Agreement. The irony was that the successful implementation of the Florence Agreement was accompanied by the armed conflict in Kosovo.

Despite the success of the arms control process, several shortcomings and deficiencies remained, including: (a) hesitation and delays in developing cooperation and confidence between the entity armed forces; (b) the destabilizing factor of the existence of two, in practice three (Muslim, Croatian and Serb), armies in Bosnia and Herzegovina; (c) the lack of a common security policy leading progressively to a state dimension of defence, requiring *inter alia* a strengthening of the Standing Committee on Military Matters established by the Presidency of Bosnia and Herzegovina; (d) the increasing diver-

gence in doctrine and training between the entity armed forces; and (e) insufficient security cooperation. The latter concerned the lack of transparent, publicly accountable external assistance to the entity armed forces; the high levels of defence expenditure; and the lack of defence revenues and expenditures in both the Federation of Bosnia and Herzegovina and the Republika Srpska. The Peace Implementation Council warned that, if the entities concerned did not meet the requirement of full transparency in these areas, it would review the overall provision of assistance to them.

An additional several hundred heavy weapons were destroyed after the end of the reduction period (i.e., after November 1997). Nearly all the inspections had been characterized by transparency and cooperation, and they revealed no major discrepancies with the information exchanged. The notification and inspection regimes have been consolidated with OSCE assistance to the parties.

The first conference to review implementation was held in Vienna on 15–19 June 1998. The parties agreed on measures to improve the level of implementation, and appropriate instructions were given to the SRCC.

A programme of action for 1999 and beyond was set out. Weapon holdings will be monitored. The chairmanship of the SRCC was transferred from the Personal Representative of the CIO to the five parties to the Florence Agreement, on the basis of rotation, as from 1999. The OSCE continued to provide assistance to the parties in assuming the SRCC chairmanship, planning and evaluation of the inspections, inspecting and evaluation teams, training for inspectors and the improvement of data exchange. Inspections are being carried out, with the exception of Bosnia and Herzegovina because of its joint authorities' failure to decide on the composition of inspection teams. Consequently, Bosnia and Herzegovina is still unable to accept or carry out inspections.

As a result of the start of the NATO intervention on 24 March 1999, Yugoslavia 'suspended' on 31 March the implementation of the Florence Agreement on Yugoslav territory, and the authorities of the Republika Srpska curtailed their contacts with the NATO states participating in the air campaign against the Belgrade regime. In August 1999 Yugoslavia notified termination of the suspension of its participation in the implementation of the Article IV agreement and agreed to fully resume its participation in the SRCC in September 1999. In June 2000 the FRY for the second time temporarily suspended participation in the Florence Agreement to protest against not having been invited to the Peace Implementation Council ministerial meeting in Brussels and the developments in Kosovo; it was joined by the Republika Srpska. In late July both the FRY and the Bosnian Serbs resumed participation in the agreement. As a result, the postponed second review conference was rescheduled for October–November 2000.

The immediate tasks for the continued implementation of the Florence Agreement are twofold. First, inspections of undeclared sites ('challenge inspections') should be improved in order to further enhance transparency and



confidence. France and Germany provided a specific training course for such inspections. Second, the parties are encouraged to adopt voluntary limitations on exemptions to the armaments ceilings and to make voluntary reductions of these ceilings. These reductions should also be extended to include the defence budgets and military manpower and be aligned with the average levels of the neighbouring countries.

In late October 1999 both entities of Bosnia and Herzegovina announced that they would reduce their armies by 15 per cent, under a decision taken by the country's collective presidency. The reduction has been completed and another 15 per cent reduction was pledged in 2000.

### **Towards regional stability**

In December 1996 an unequivocal link was established between the mandate for the negotiations on a regional balance 'in and around the former Yugoslavia', under Article V of the Agreement on Regional Stabilization annexed to the Dayton Agreement, and the implementation of subregional arms control under Article IV. The mandate was dependent on the implementation of the Florence Agreement.

Prior to the OSCE Ministerial Council meeting held in Copenhagen on 18–19 December 1997, the CIO appointed Ambassador Henry Jacolin of France as his Special Representative to help organize and conduct the negotiations under Article V. The Copenhagen meeting invited the Special Representative to start consultations on a precise mandate and initiate a process as early as possible with a view to achieving initial results by the summer of 1998. The following premises for the negotiations were put forward by the Ministerial Council.

1. States not parties to the Dayton Agreement should participate on a voluntary basis, depending on their specific security environment.

2. Bosnia and Herzegovina must be represented by a single delegation appointed by the common institutions at all Article V-related negotiations.

3. The development of CSBMs and other appropriate measures adapted to specific regional security challenges may be considered, and information exchange and verification activities may be agreed in line with the regimes already in place.

4. Such activities can be agreed between states which do not at present have the opportunity to exchange information with each other or inspect each other under legally binding arms control agreements.

5. The guiding principles should include military significance, practicality and cost-effectiveness.

6. Steps in this context should not prejudice the integrity of existing arms control and CSBM agreements. In particular, Article V talks should not alter obligations under the CFE Treaty or under the Article II (CSBM) or Article IV (Florence) agreements.

In spite of expectations that the Article V consultations would start the process of creating a regional balance by the summer of 1998, it was not until the autumn that consensus was reached on a number of important items specifying how negotiations should be conducted. The volatile situation in the Balkans and the unfinished business of CFE Treaty adaptation also affected the pace of the consultations.

It had been agreed that the region will remain undefined, as 20 states from both within and outside the region have indicated their willingness to be involved in the process.<sup>3</sup> One challenge, according to Ambassador Jacolin, was to achieve 'a synthesis between the dialectic of balancing regional concerns with the indivisible nature of security'. Another challenge was to balance the interests of states within the region with those outside states which have an interest in the region's security.

Work on the mandate of the Article V negotiations was concluded on 27 November 1998. Although the original idea was to bridge the arms control obligations of the Florence Agreement and those of the neighbouring CFE states, the mandate is directed at CSBMs, transparency, verification and risk-reduction measures rather than weapon limitations. The talks were to begin in mid-January 1999 but were postponed until March because of the discovery of a massacre in the Kosovo village of Racak on 15 January. After the meeting of the 20 participating countries held on 8 March, the talks were temporarily suspended because of the NATO air campaign. They were not resumed until 6 September 1999. Several potential CSBMs and transparency measures had been put forward and examined. The OSCE summit meeting in Istanbul welcomed the entry of the substantive phase of the negotiations and urged the participants to complete their work by the end of 2000.

In 2000 the negotiations made some headway despite setbacks resulting from the political conduct of the FRY. Since the end of 1999, 20 participating states have tabled 12 proposals for measures that could contribute to security in the region in and around the former Yugoslavia. They concerned the areas of exchange of military information, military contacts and cooperation, increased transparency of defence budgets and planning, and small arms and light weapons. The stepping down of Slobodan Milosevic in September 2000 and the admission of Yugoslavia to the OSCE should help to move the arms control and stability process in the region further.

In parallel with the Article V talks, a complementary negotiation under the Stability Pact for South Eastern Europe is taking place. One of the elements of the Stability Pact is support for ongoing efforts of arms control and confidence and security building. The challenge for the participants is to ensure the effective symbiosis and complementarity of the Article V and Stability Pact processes and, at the same time, to avoid duplication of work.

<sup>3</sup> These are the 5 former Yugoslav republics plus Albania, Austria, Bulgaria, France, Germany, Greece, Hungary, Italy, the Netherlands, Romania, Russia, Spain, Turkey, the UK and the USA.

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## 27. Anti-personnel mines

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*Zdzislaw Lachowski*

It is estimated that more than 250 million anti-personnel mines (APMs) are stored in the arsenals of 105 countries, according to *Landmine Monitor Report 2000*. While the military utility of these weapons in interstate conflicts has been increasingly called into question, they are still used extensively along international borders and in intra-state conflicts.

### I. The CCW Convention and amended Protocol II

Before 1992, the problem of anti-personnel landmines was not substantially addressed in any disarmament forum, but a significant shift in attitudes towards the elimination of APMs occurred in the mid-1990s. Progress was made after the 1995/96 Review Conference of the 1981 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which May be Deemed to be Excessively Injurious or to Have Indiscriminate Effects (CCW Convention). Often referred to as the 'Inhumane Weapons' Convention, this was for a long time the only convention in force that prohibited the use of 'mines, booby-traps and other devices' (Protocol II). The Review Conference underscored the extent of the problem, gained widespread support for a ban and, at its concluding session in May 1996, adopted an amended Protocol II, replacing and strengthening the provisions of the original protocol and adding further restrictions on the use, production and transfer of APMs. The 1996 amended Protocol II supplemented the original protocol with a number of provisions concerning its applicability, the detectability of all APMs, a ban on the transfer of prohibited mines, responsibility for mine clearance, and so on.

On 3 June 1998 Lithuania became the 20th state to ratify the amended Protocol II, allowing it to enter into force on 3 December 1998. On 27 June 1998 Presidents Jiang Zemin and Bill Clinton issued the Sino-US Presidential Joint Statement on Anti-Personnel Landmines, in which they agreed to work towards early ratification of the amended Protocol II and to urge others to ratify it. China did so on 4 November 1998.

On 20 May 1999 the US Senate approved the amended Protocol II and on 24 May President Clinton signed the instrument of ratification, making the USA a party to the protocol. At the first annual conference of the states parties to Protocol II the USA proposed: (a) strengthening protocol restrictions on the use of landmines, particularly anti-vehicle mines (detectability and providing self-destructing and self-deactivating mechanisms on remotely delivered anti-vehicle mines); (b) increasing the reliability of remotely delivered mines; and

**Table 27.1.** The status of the APM Convention, as of 1 December 2000

Region	Signed but not ratified	Acceded and ratified	Unable to accede/opposed	Unknown/undecided	<b>Total</b>
Africa	13	30	2	8	<b>53</b>
Asia-Pacific	6	20	6	24	<b>56</b>
Americas	6	27	2	0	<b>35</b>
Europe	5	32	2	8	<b>47</b>
<b>Total</b>	<b>30</b>	<b>109</b>	<b>12</b>	<b>40</b>	<b>191</b>

*Source:* International Campaign to Ban Landmines, 'Ratification updates', 1 Dec. 2000, URL <<http://www.icbl.org>>; and Mines Action Canada, URL <<http://www.minesactioncanada.com>>.

(c) adopting a three-step procedure similar to that of the 1997 APM Convention for handling cases and allegations of non-compliance (first raising a compliance question with the UN Secretary-General, then holding a meeting of states parties, and finally establishing a fact-finding mission). The US proposals did not receive much support at the conference, but the USA hopes to build support for its initiatives in the run-up to the CCW Review Conference scheduled to be held in 2001.

A total of 58 states—including China, India, Pakistan, the UK and the USA—had ratified Protocol II by the end of 2000.

In 1997–98 the ban on landmines was dealt with in two separate forums. The approaches of the Ottawa Process and the Conference on Disarmament (CD) can be roughly classified as the 'humanitarian' and the 'arms control' tracks, respectively.

## II. The Ottawa Process

Despite the progress made in the mid-1990s it was largely the deficiencies of the amended Protocol II that led to a series of further steps and initiatives. The subsequent momentum, especially after the initiative of the International Strategy Conference held in Ottawa on 3–5 October 1996 to pursue a complete ban on these weapons, was unprecedented, and the number of states supporting a ban grew during 1997 from some 50 to more than 120 states. The vigorous and innovative anti-landmine campaign and constant pressure by non-governmental organizations (NGOs) generated broad public interest. This forced governments to take a more active position on the goal of a ban and stood in contrast to the lame efforts in a parallel forum, the CD. During the course of 1997 a growing number of African, Latin American, Pacific and Western countries came to support the goal of an APM ban as pursued within the Ottawa framework.

The Ottawa Process picked up steam and attracted new participants in 1997. The Oslo Conference for a Global Ban on Anti-Personnel Landmines took place on 1–19 September 1997 with the aim of adopting the text of a convention. China, Cuba, Egypt, India, Iran, Iraq, Israel, North Korea, South Korea, Pakistan, Russia and Syria did not participate. Several states had NGO representatives on their delegations.

Two weeks before the Oslo Conference began, the USA announced its intention to take part as a full participant. In Oslo the USA strove to achieve several exemptions. Despite vigorous US efforts, its amendments were effectively opposed by the majority of other states and NGOs determined ‘not to pay any price’ to get the USA to climb on the bandwagon (‘no exceptions, no reservations and no loopholes’). On 17 September the Clinton Administration, under heavy pressure from the US Joint Chiefs of Staff, decided to withdraw and not to sign the final text in December.

Together with the Oslo Conference, the 10 October announcement that the International Campaign to Ban Landmines (ICBL) and Jody Williams, who had played the decisive role in finalizing the text of the APM Convention, were to be awarded the Nobel Peace Prize for 1997 gave another impetus to the Ottawa Process and led to support by other states in the run-up to the Ottawa meeting.

On 3–4 December 1997, in Ottawa, 121 states signed the convention.

### **The main provisions of the APM Convention**

Crowning the first stage of the Ottawa Process of 1996–97, the APM Convention is a hybrid agreement combining arms control and humanitarian law. The text is short, simple and direct. It comprises 22 articles and envisages no reservations or exceptions for specific types of weapon or their conditional use. Moral and humanitarian considerations are at the fore and APMs are clearly defined as mines designed to be exploded by the direct ‘presence, proximity or contact of a person’ (Article 2), not just as those ‘primarily’ designed to do so. (This controversial word from the amended CCW Protocol II was dropped in the APM Convention.) The definition in the APM Convention explicitly excludes anti-tank and anti-vehicle mines equipped with ‘anti-handling devices’ to prevent tampering. An anti-handling device is defined as one ‘intended to protect a mine and which is part of, linked to, attached to or placed under the mine’. The US proposal at the Oslo Conference to exempt anti-handling devices placed ‘near’ the mine, which would have meant that three US systems with anti-personnel components would not have been classified as APMs, was not adopted.

Under the terms of the convention, small numbers of APMs—‘the minimum number absolutely necessary’—can be retained or transferred for the development of and training in mine detection, clearance or destruction techniques, and the transfer of APMs for the purpose of destruction is permitted (Article 3). All other stockpiled APMs are to be destroyed within four years of

entry into force of the convention (Article 4); all those in mined areas under a state party's 'jurisdiction or control' are to be destroyed as soon as possible but no later than 10 years after entry into force; and a party may request an extension of up to 10 years to complete destruction (Article 5). The convention envisages that each party may seek and receive aid from other parties and that states 'in a position to do so' shall provide assistance for the care and rehabilitation of mine victims, mine-awareness programmes, mine clearance and the destruction of stockpiled APMs (Article 6). Within one year of the convention's entry into force, parties are to submit to the UN Secretary-General (the depositary) detailed information on their stockpiled mines and the locations of all their minefields and mined areas known to them; this information is to be updated annually. Regarding compliance, the absence of such terms as 'verification' or 'inspection' shows that the parties practically abandoned enforcement and verification (Article 8). Instead, fact-finding missions authorized by a regular or special meeting of states parties are envisaged. In short, the focus is on the goodwill and cooperation of the participating states and on the prevention of widespread use rather than on minor individual violations. Review conferences are to be convened every five years after entry into force. Amendments to the convention may be proposed at any time after entry into force and may be adopted by a two-thirds majority vote of states parties present and voting at a specially convened Amendment Conference.

The convention was to enter into force six months after the 40th instrument of ratification, acceptance, approval or accession had been deposited with the UN Secretary-General (Article 17). When the convention had entered into force, the ratification or accession of a state was to take effect after six months. The convention is of unlimited duration. No article is subject to reservation (Article 19), but parties may withdraw from the convention with six months' notice, except in time of conflict (Article 20).

### **Entry into force of the APM Convention**

The APM Convention entered into force relatively quickly, with the required 40 ratifications having been achieved in just nine months. On 18 September 1998 Burkina Faso became the 40th state to ratify the convention and, in accordance with Article 17, it entered into force on 1 March 1999.

As of 1 December 2000, 139 states had signed or ratified the convention and 109 had become parties. However, 52 states have not acceded to the convention, among them three of the five UN Security Council permanent members (China, Russia and the USA); other major landmine producers, such as India and Pakistan; all but two of the former Soviet republics; and many states in Asia. The signatories and parties included all the states of the western hemisphere except Cuba and the USA, all the NATO nations except Turkey and the USA, all the European Union member states except Finland, 43 African countries and 26 states in the Asia-Pacific region (the regional distribution is shown in table 27.1). Belarus, China, Cuba, Egypt, India, Iran,

Libya, Pakistan, Russia, Sri Lanka, Syria and the USA either are opposed to or claim to be unable to accede to the convention.

In May 1998 the USA indicated its willingness to join the APM Convention in the future. The new US commitment included the following undertakings.

1. The USA will destroy all its 'dumb' APMs (those without self-destruction or self-deactivation mechanisms) by 1999, except those in South Korea.

2. It will cease using landmines outside South Korea by 2003 and pursue the objective of having alternatives for South Korea by 2006, including 'smart' landmines (those with self-destruction or self-deactivation mechanisms).

3. It will search for alternatives to its mixed anti-tank systems by: (a) actively exploring the use of APM alternatives in place of the self-destructing anti-personnel sub-munitions currently used; and (b) exploring the development of other technologies and/or operational concepts that offer alternatives that would enable the USA to eliminate its mixed systems entirely.

4. It will sign the convention by 2006 if efforts to identify and field suitable alternative technologies to US landmines and mixed anti-tank systems succeed.

In the course of 1999 the USA repeatedly reaffirmed this commitment. At the June 1999 meeting of the Group of Eight (G8) industrialized nations held in Cologne, Russia announced its intention to sign the APM Convention.

### **Landmine Monitor**

The APM Convention is weakened by the absence of strong monitoring and enforcement provisions. To compensate *inter alia* for the absence of a traditional verification mechanism in the APM Convention, the ICBL established a civil society-based monitoring network—Landmine Monitor—to assess the implementation and progress of and compliance with the APM Convention and to more generally monitor other aspects of the 'global landmine crisis' in all countries of the world. The first annual Landmine Monitor Report was presented at the first conference of states parties, in Maputo, Mozambique, on 3–7 May 1999. The second annual report was released on 7 September 2000.

## **III. The Conference on Disarmament**

In early 1997 the United States decided to seek to initiate negotiations on a global treaty banning the use, production, stockpiling and transfer of APMs in the Conference on Disarmament, whose membership includes all the major landmine producers and exporters, rather than to pursue the Ottawa track. The US decision was criticized by proponents of the 'fast track' on various grounds because it would apply an arms control approach to what the Ottawa Group viewed as a humanitarian question and, as the CD is suffering from a serious institutional crisis, act as a potential brake on progress towards a ban. It was

also feared that China and Russia, CD members outside the Ottawa Group and both opposed to a swiftly negotiated ban, and others might stall or hamstring the entire negotiation process.

The US resistance to a complete ban that would mean giving up the US stockpile stemmed chiefly from the military's reluctance to abandon high-technology mines. Nevertheless, the USA retained the option of participating in the Ottawa Group.

Russia, reluctant to seek an immediate ban for the same reason as China (the need to defend long borders), argued that mine-clearance efforts should be intensified and that moratoria on the export of APMs should be imposed and maintained. Russia questioned the feasibility and costs of verifying the ban effectively and warned against the use of APMs by non-state actors.

A dozen or so CD member states did not want to ban APMs or discuss restrictions in the CD or any other forum. A number of states shared the view that the priority of the CD was nuclear disarmament. The CD's efforts to highlight the issue of landmines, and especially to negotiate a permanent ban on their transfer, produced a stalemate in 1998, underscoring the political and institutional crisis of this body.

Canada, some APM Convention signatories and some Western delegations oppose the CD talks going beyond a ban on transfers. The Canadian CD delegate strongly warned against supporting any search for a more elaborate international instrument or the creation of a bureaucracy or verification regime liable to undermine the APM Convention. Some delegates suggested that the proposed ban on transfers be considered at the CCW Review Conference to be held in 2001 rather than in the CD.

The CD remained virtually in limbo in 1997–2000.



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## 28. Nuclear arms control and non-proliferation

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*Shannon N. Kile*

### I. Introduction

This chapter examines the status of the principal nuclear arms control treaties and negotiations at a time when serious difficulties have emerged in making further progress after the achievements that followed the end of the cold war. The aim is not to analyse the broader trends in international relations which have eroded the political climate for arms control cooperation. Rather, it is to offer a treaty-focused *tour d'horizon* of nuclear arms control and non-proliferation efforts and to highlight the progress—or lack thereof—that those efforts have made. The chapter also highlights the direction in which the nuclear arms control agenda is evolving in the post-cold war world.

In the sections below, the chapter looks first at Soviet/Russian–US treaty regimes and negotiating processes, some of which have become multilateral in the wake of the collapse of the USSR. It then examines the status of the main multilateral nuclear arms control agreements and negotiations. Each of the sections below begins with a brief description of the aims and objectives of the treaty or negotiations. It then summarizes the main treaty provisions or the outlines of the agreement being negotiated, before turning to a description of the progress made in either concluding or implementing the agreements.

### II. The START treaties

#### **The START I Treaty**

The 1991 Strategic Arms Reduction Treaty (START I Treaty) was signed by the USA and the USSR after over a decade of negotiation. Ratification and implementation of the treaty were complicated by the dissolution of the Soviet Union, which resulted in the creation of 15 new states, 4 of which—Belarus, Kazakhstan, Russia and Ukraine—had former Soviet strategic nuclear weapons based on their territories. At the May 1992 meeting of foreign ministers, Belarus, Kazakhstan and Ukraine signed the Lisbon Protocol with Russia and the USA, making all five countries parties to START I; the three non-Russian former Soviet republics committed themselves in the Protocol to meet the USSR's nuclear arms reduction obligations and pledged to accede to the 1968 Non-Proliferation Treaty (NPT) as non-nuclear weapon states (NNWS). Following the resolution of a dispute arising from the Ukrainian Parliament's conditional ratification of the treaty, START I entered into force on 5 December 1994.

**Table 28.1.** Select START I interim and final ceilings, 1997–2001<sup>a</sup>

Category	5 Dec. 1997	5 Dec. 1999	5 Dec. 2001
Strategic nuclear delivery vehicles (SNDVs) <sup>b</sup>	2 100	1 900	1 600
Total treaty-accountable warheads	9 150	7 950	6 000
Warheads attributed to ICBMs and SLBMs	8 050	6 750	4 900

ICBM = intercontinental ballistic missile; SLBM = submarine-launched ballistic missile.

<sup>a</sup> These ceilings applied equally to the USA and the USSR as the signatories of the START I Treaty. The USSR's obligations were assumed by Russia as its legal successor state and later by Belarus, Kazakhstan and Ukraine. Only Russia will retain SNDVs and nuclear warheads at the end of the implementation period.

<sup>b</sup> Deployed ICBMs and their associated launchers, deployed SLBMs and their associated launchers, and deployed heavy bombers.

*Source:* The START I Treaty.

### *Treaty provisions*

Under START I, Russia and the USA have undertaken to make phased reductions in their strategic offensive nuclear forces over a seven-year period, with interim limits on strategic nuclear delivery vehicles (SNDVs) and accountable warheads to be reached within three and five years, respectively, after the treaty's entry into force (table 28.1). The treaty also places limits on inventories of mobile and heavy intercontinental ballistic missiles (ICBMs) and on aggregate ballistic missile throw-weight.

The START I Treaty established an intrusive verification regime for monitoring the parties' compliance with the provisions of the treaty; the regime will also apply to START II, except where it has been specifically modified (e.g., to take into account differences in bomber counting rules). In addition to relying on national technical means (NTM) of verification, the START regime followed the trend set in recent arms control agreements, in particular the 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty), in emphasizing cooperative verification measures. These measures include 12 types of on-site inspection. The treaty established a Joint Compliance and Inspection Commission (JCIC) as the forum in which the parties can resolve compliance questions and discuss ways to facilitate its implementation.

### *Treaty implementation*

The START I Treaty proved instrumental in settling the fate of the former Soviet strategic nuclear arsenal in Belarus, Kazakhstan and Ukraine. With the dissolution of the USSR these new states had inherited over 3400 strategic nuclear warheads carried on ICBMs and long-range heavy bombers based on their territories, although operational control over the weapons remained in Moscow's hands. A key concern in the international community, particularly

in the United States, was to preserve a centralized command and control system for the post-Soviet strategic nuclear forces and to ensure their security and custodial safety. Within the START I framework, the Lisbon Protocol provided the basis for consolidating Soviet nuclear warheads in Russia and for eliminating the delivery vehicles and associated infrastructure in Belarus, Kazakhstan and Ukraine. The removal to Russia of all strategic nuclear warheads from Kazakhstan was completed in April 1995, from Ukraine in May 1996 and from Belarus in November 1996.

As of January 2000, the implementation of START I continued to proceed apace (table 28.2). The progress made towards reaching the START I force limits has been accompanied by a relative lack of controversy in the JCIC over the parties' treaty compliance. However, some complaints have been raised in Russia that the USA is not strictly complying with the treaty's provisions, in particular those related to inspection and transparency measures.

## **The START II Treaty**

### *Treaty provisions*

The START II Treaty was signed by Russia and the United States on 3 January 1993. Under the terms of the treaty, the two signatories committed themselves to reduce their strategic nuclear forces in two phases, at the end of which neither country may deploy more than 3500 strategic nuclear warheads. This ceiling represents about one-third of the size of the deployed Soviet and US strategic nuclear forces before the signing of the START I Treaty in 1991. In addition to lowering nuclear force levels, the treaty bans all land-based ICBMs carrying multiple independently targetable re-entry vehicles (MIRVs). This ban, which constitutes the central element of the treaty, would herald a major advance in nuclear arms control in that it would rid the Russian and US strategic nuclear arsenals of what many experts consider to be their most destabilizing weapons.

In September 1997 Russia and the USA signed a Protocol to the START II Treaty that extended the deadlines by which the START II reductions must be completed. The START II Protocol, which must be ratified by the legislatures of both countries, extends the final reduction deadline by five years to 31 December 2007; it also extends the interim reduction deadline from 5 December 2001 (i.e., seven years after the entry into force of the START I Treaty) to 31 December 2004.

### *START II and Russian ratification*

The START II Treaty was ratified by the US Senate in January 1996 but encountered significant opposition in the Russian Federal Assembly (Parliament) that left it languishing in parliamentary committees for nearly five years. Support in Russia for START II had been undermined by the

**Table 28.2.** START I aggregate numbers of strategic nuclear delivery vehicles and accountable warheads, as of 1 July 2000<sup>a</sup>

Category	Russia	Belarus	Kazakhstan	Ukraine <sup>b</sup>	Ex-Soviet total	USA
Strategic nuclear delivery vehicles	1 313	0	0	43	1 356	1 407
Total treaty-accountable warheads	6 464	0	0	396	6 860	7 519
ICBM and SLBM warheads	5 812	0	0	260	6 072	5 941

<sup>a</sup> The numbers given in this table are in accordance with the START I Treaty counting rules and include delivery vehicles which have been deactivated in preparation for elimination or conversion but which remain treaty-accountable.

<sup>b</sup> The transfer of strategic nuclear warheads from Ukraine to Russia was completed in May 1996. The warheads remain START-accountable until their associated delivery vehicles (32 Tu-95/Tu-160 heavy bombers and 27 SS-24 ICBMs) have been eliminated in accordance with procedures specified in the treaty.

*Source:* The START I Treaty Memorandum of Understanding, 1 July 2000.

treaty's linkage to wider security policy controversies, such as over NATO enlargement and crises in the Balkans, that fuelled tensions in Russia's relations with the West, particularly with the USA, and led on several occasions to the postponement of ratification votes. In addition, critics raised a number of concerns about the allegedly inequitable impact of the treaty's provisions on the structure of the Russian and US strategic nuclear forces.<sup>1</sup> Critics also argued that Russia could not afford to meet the START II implementation timetable given its present economic problems. It was this concern that prompted the signing of the 1997 START II Protocol, giving Russia an additional five years over which to spread the costs connected with implementing the treaty.

The prospects for START II ratification were improved by changes on the Russian domestic political scene in 1999–2000. President Vladimir Putin pushed vigorously for the Duma to approve the accord in what many observers saw as part of a broader effort to improve Russia's relations with the West. Putin's task was facilitated by the results of the December 1999 parliamentary elections, in which the communist and nationalist factions most ardently opposed to the treaty lost ground.

One of the key arguments in favour of START II ratification put forward by Putin was that Russia could not afford to maintain its Soviet-era strategic nuclear forces at present levels. The parliamentary hearings convened in the spring of 2000 served to impress upon deputies that Russian nuclear force

<sup>1</sup> Russian critics complained that START II requires Russia to destroy most of its MIRVed ICBMs, which constitute the backbone of Russia's strategic nuclear forces, while the USA can download and retain its Minuteman III ICBMs as well as retain the air- and sea-based delivery vehicles in which it enjoys a comparative technological advantage.

**Table 28.3.** START II interim and final ceilings, 2004–2007<sup>a</sup>

Category	Phase I limits (31 Dec. 2004)	Phase II final limits (31 Dec. 2007)
Total deployed strategic nuclear warheads	3 800–4 250	3 000–3 500
Warheads deployed on MIRVed ICBMs	1 200	0
Warheads deployed on SLBMs	2 160	1 700–1 750

MIRV = multiple independently targetable re-entry vehicle; ICBM = intercontinental ballistic missile; SLBM = submarine-launched ballistic missile.

<sup>a</sup>Deadlines for completing interim and final reductions, as extended by the 1997 START II Protocol.

*Source:* The START II Treaty.

levels are set to decline well below the START II limits during the first decade of the new century, regardless of whether or not the treaty enters into force. Some military planners and defence experts predicted that in the light of the scheduled decommissioning of ageing ICBMs and ballistic missile submarines Russia would not be able to deploy more than 1000–1500 strategic nuclear warheads in 2010. The hearings reinforced another argument made by treaty proponents, namely, that START II ratification was a necessary step in a strategic arms reduction process that offers the possibility of preserving an approximate numerical balance between the Russian and US strategic forces.

On 14 April 2000 the lower chamber of the Russian Federal Assembly, the State Duma, voted to ratify the START II Treaty and the accompanying START II Protocol; the agreements were approved by the upper house of parliament, the Federation Council, the following week. The Duma's ratification bill contained a number of binding conditions. Among other responsibilities in implementing the treaty, the government is required to negotiate a START III accord that will rectify specific shortcomings identified in START II. The ratification bill also specified the 'extraordinary events' that would give Russia the right to withdraw from the treaty; these included a US withdrawal from the 1972 Anti-Ballistic Missile Treaty (ABM Treaty) or violation of that treaty's provisions. In addition, the bill stipulated that Russia would exchange the START II instruments of ratification only after the US Senate ratified a package of agreements signed in 1997 related to the ABM Treaty (see section III below). This condition represents a potential 'show stopper' in implementing START II, since the agreements—which were ratified by the Duma at the same time as START II—face strong opposition in the Senate. This led to a situation in which START II has been ratified by both signatories but may never enter into force.

### A START III treaty

The main elements of a START III treaty were agreed at a March 1997 summit meeting held in Helsinki, Finland, between Russian President Boris Yeltsin and US President Bill Clinton. The two presidents issued a Joint Statement on Parameters of Future Reductions in Nuclear Forces which proposed reductions in aggregate levels of strategic nuclear warheads to 2000–2500 for each of the parties. The implementation of these reductions was envisioned as running concurrently with that of START II, with the final reductions for both treaties to be completed by the same date.

The START III framework agreed at Helsinki reflects a continuation of the trend towards gradually declining strategic nuclear force levels as target lists and modernization plans are brought into line with changing political and fiscal circumstances. The idea of negotiating deeper reductions in strategic nuclear forces has gained increasing favour in Russia, even among some arms control sceptics. It is particularly appealing in that it offers a framework for requiring the USA to make reductions to force levels that Russia could afford to sustain as it eliminates ICBMs, ballistic missile submarines and heavy bombers reaching the end of their service lives. Russian officials have subsequently proposed making deeper cuts to 1500 warheads each.

Prior to the June 2000 summit meeting between Clinton and Putin, there had been considerable speculation that the US Administration might be willing to agree to a lower ceiling in exchange for Russia's agreement to amend the ABM Treaty to permit the deployment by the USA of a limited national missile defence system. However, the US military has been reluctant to embrace the lower ceiling envisioned in a Russian–US 'grand bargain'. Cuts below 2000–2500 warheads would probably require it to revise its nuclear targeting doctrine as well as restructure its 'triad' of strategic nuclear forces. In addition, there is considerable political opposition among Republicans in the US Congress to any deal aimed at preserving intact the ABM Treaty.

#### *Nuclear warhead transparency and dismantlement regime*

In a potential ground-breaking advance for nuclear arms control, Clinton and Yeltsin agreed in Helsinki that START III should contain 'measures relating to the transparency of strategic nuclear warhead inventories and the destruction of strategic nuclear warheads'.<sup>2</sup> The goal of these measures is to 'lock in' Russian–US reductions of their strategic nuclear forces and make those cuts permanent. They highlight the direction in which the bilateral nuclear arms control agenda is evolving: namely, the previous focus on limiting launchers and their associated nuclear warheads is turning to physically dismantling those warheads and disposing of the fissile material that they contain in a transparent and irreversible way.

<sup>2</sup> The START I and START II treaties do not require the dismantlement of nuclear warheads removed from delivery vehicles scheduled to be eliminated.

In the context of a future START III treaty, the idea of establishing a nuclear warhead transparency and dismantlement regime has generated particular interest as a mechanism for addressing specific Russian and US concerns related to asymmetries in their respective nuclear force structures; these concerns have become more salient as deeper cuts in deployed strategic nuclear forces are contemplated. Russia is seeking the verified dismantlement of US nuclear warheads removed from delivery vehicles slated for elimination under START II. Russian critics of the treaty have complained that its missile downloading provisions have the effect of leaving the USA in a better position than Russia to stage a break-out from the START regime and rapidly reconstitute its nuclear forces with nuclear warheads drawn from a 'hedge reserve'.<sup>3</sup> For its part, the USA is seeking greater transparency in Russia's large inventory of substrategic (or tactical) nuclear warheads—which is believed to considerably exceed US holdings of tactical nuclear weapons—as a prelude to negotiating legally binding limitations on the numbers and deployments of these weapons; currently, these weapons are subject only to informal, unilaterally imposed limitations. However, in the light of the political and technical difficulties involved in building what might be called 'nuclear glasnost', Russian and US officials have not linked progress in making deeper force reductions to progress in establishing a warhead transparency and dismantlement regime.<sup>4</sup>

### III. The Anti-Ballistic Missile Treaty

The ABM Treaty was signed by the Soviet Union and the USA in May 1972 and entered into force in October of that year. It was negotiated within the framework of the Strategic Arms Limitation Talks (SALT) and formed a cornerstone of bilateral efforts during the cold war to constrain nuclear arsenals and enhance strategic stability. It reflected a recognition that the large-scale deployment of ballistic missile defences would accelerate the nuclear arms race, since either side would deploy additional offensive strategic forces to ensure a robust nuclear retaliatory capability and could do so at a small fraction of the cost of building missile defence systems. With the end of the cold war and the dwindling of US interest in the Reagan Administration's controversial Strategic Defense Initiative (SDI) programme, the subject of ballistic missile defence receded in the early 1990s. However, in recent years there has been a renewal of the debate in the USA over the desirability of national missile defences and of continued adherence to the ABM Treaty. This

<sup>3</sup> Specifically, a requirement to dismantle warheads removed from ballistic missiles will help to compensate for the absence in the START II Treaty of a rule requiring that a 'downloaded' missile (i.e., a missile from which one or more warheads have been removed to meet START numerical limits) must be fitted with an entirely new 'bus', or front-end platform, able to hold only the smaller number of warheads.

<sup>4</sup> Bilateral talks were held in the Joint Working Group on Safeguards, Transparency and Irreversibility, a forum launched in 1994 for negotiations to establish a comprehensive transparency regime covering Russian and US stockpiles of nuclear weapons and fissile materials. The talks were broken off in 1995.

debate has complicated Russian–US nuclear arms reduction efforts within the START framework and threatens to undermine restraint in nuclear arms modernization programmes elsewhere.

### **Treaty provisions**

The basic purpose of the ABM Treaty is to prevent the parties from developing and deploying an anti-missile system for defending their national territories. It sharply limits the development and deployment of permitted missile defence systems in order to prevent circumvention of this basic purpose and to prevent the parties from being able to rapidly break out from the treaty regime.

Under the original terms of the treaty, each party was permitted two ABM deployment areas: one to protect the national capital and the other to protect an ICBM launch site. A protocol signed in 1974 limits the parties to a single deployment area containing no more than 100 ABM launchers and 100 single-warhead missile interceptors. The associated engagement radars within the deployment area cannot exceed specified numbers and are subject to qualitative restrictions, as are radars used for early warning of ballistic missile attack. In addition, the development, testing and deployment of sea-, air-, space- or mobile land-based ABM systems or components are prohibited altogether.

The ABM Treaty does not limit air defence missiles and radars, provided that they adhere to two basic restrictions: (a) they may not be tested against strategic ballistic missiles in flight trajectory; and (b) they may not be given the technical capability to counter such missiles and their constituent elements. However, the treaty does not define what is a strategic ballistic missile, nor does it specify a set of criteria for assessing whether a defence system has an ‘inherent capability’ to counter strategic missiles. This led to a protracted dispute between Russia and the USA in the mid-1990s, when the latter sought to clarify the ABM Treaty to permit the testing and deployment of a new family of advanced-capability theatre missile defence (TMD) systems.

The ABM Treaty provides for the establishment of the Standing Consultative Commission (SCC) as the forum for the parties to discuss treaty-related questions and to ensure its ‘continuing viability and effectiveness’. It also provides for a review conference to be held every five years. The treaty has an unlimited duration, although parties have the right to withdraw from it for reasons of ‘supreme national interests’ with six months’ notification.

#### *Memorandum of Understanding on successor states to the Soviet Union*

In September 1997 a set of agreements were signed making the ABM Treaty a multilateral accord. The agreements included a Memorandum of Understanding on Succession (MOUS) signed by the foreign ministers of Belarus, Kazakhstan, Russia, Ukraine and the USA, pursuant to which the four former Soviet republics collectively assumed the rights and obligations of the USSR under the ABM Treaty. Representatives of all five states participated in the fifth ABM Treaty Review Conference, held in October 1998.



In the USA, the MOUS became the subject of a dispute between congressional Republicans and the Clinton Administration. Republican leaders in the Senate and the House of Representatives stated that in their view ‘the ABM Treaty has lapsed and is of no force and effect unless the Senate approves the Memorandum of Understanding [on Succession], or some similar agreement to revive the treaty’. The Clinton Administration rejected this view, arguing that, while the Senate’s failure to approve the MOUS would leave succession arrangements unsettled, the ABM Treaty clearly remains in force. The administration’s view was supported by most legal experts.

### **The ABM Treaty and national missile defence**

In May 1999 the US House of Representatives approved the National Missile Defense Act of 1999, which committed the USA ‘to deploy as soon as is technologically possible an effective National Missile Defense system capable of defending the territory of the United States against limited ballistic missile attack (whether accidental, unauthorized, or deliberate)’. In signing the bill into law in July 1999, President Clinton emphasized that no decision to deploy a national missile defence (NMD) system had been made. He stated that a deployment decision would be based on the following considerations: (a) a determination that a new long-range ballistic missile threat to the USA is emerging; (b) an assessment of the technological feasibility and operational effectiveness of a proposed NMD system; (c) overall system cost; and (d) the progress made in achieving US arms control objectives, including any amendments to the ABM Treaty that may be required to accommodate a possible NMD deployment.

The passage of the bill into law reflected the emergent consensus in Washington in favour of developing and deploying a limited or ‘thin’ NMD system designed to protect the 50 US states against an attack by a small number of long-range missiles—possibly armed with nuclear or other weapons of mass destruction—launched by so-called ‘rogue nations’, or ‘states of concern’. Political support for NMD was galvanized by North Korea’s unannounced launch on 31 August 1998 of a three-stage Taepo Dong I ballistic missile that passed over Japan, ostensibly in an attempt to place a satellite in orbit. The launch was widely seen as lending credence to the findings of the influential Rumsfeld Commission Report, published earlier in 1998, which had concluded that the threat to the US troops deployed overseas and potentially to US territory posed by emerging ballistic missile capabilities in countries such as Iran and North Korea was ‘broader, more mature and evolving more rapidly than has been reported in estimates and reports by the Intelligence Community’.

#### *The proposed US national missile defence system*

The basic architecture for a limited NMD system has been outlined by Pentagon planners, although considerable uncertainty remains regarding the timing

and size of any eventual deployment. An initial missile defence system would defend the 50 US states against what the Pentagon deems to be the most immediate missile threat, that is, the 'launch of a few warheads accompanied by simple penetration aids' by North Korea; it would also provide a defence against a similar attack launched from the Middle East. This initial system, which could be deployed beginning in 2005, would consist of 20 missile interceptors based in central Alaska; soon thereafter it would be expanded to 100 interceptors. An associated ground-based X-band tracking radar would be built at Shemya Island, Alaska. The five existing ballistic missile early-warning radars, located in the USA and at Thule, Greenland and Fylingdales, UK, would be upgraded to provide additional tracking for missile flight trajectories outside X-band radar coverage. A missile defence battle-management and command, control and communication system would be built at the North American Aerospace Defense headquarters at Cheyenne Mountain, Colorado.

Beginning in 2010–11, the NMD system might be expanded to meet larger and more sophisticated missile threats. The expanded system would involve the deployment—possibly in several phases—of 100 or more interceptor missiles based at a second site, along with additional X-band tracking radars. A satellite system scheduled for deployment in low-earth orbit after 2006 would 'cue' the interceptor missiles with guidance information and information to distinguish incoming warheads from complex decoys and penetration aids.

Under the '3+3' formula adopted in 1997, the Pentagon was committed to pursuing a 'technology readiness' programme for a limited NMD system which could be deployed within three years of a decision to do so (i.e., in 2003), with an initial Deployment Readiness Review to take place in June 2000. However, in order to reduce the technical risks associated with meeting an early deployment deadline, the programme was restructured in 1999 so that the target date for achieving an initial operating capability (IOC) was postponed until 2005; US NMD research and development efforts had been criticized for 'rushing to failure' in the 1998 Welch Report, prepared by an independent panel of experts appointed by the Pentagon. The same panel warned in the summer of 2000 that the NMD programme faced significant performance risks in meeting the revised deployment schedule because of technical challenges and testing limitations.

On 1 September 2000 President Clinton announced that, while the NMD programme was sufficiently promising and affordable to justify continued development and testing, there was not sufficient information about the technical and operational effectiveness of the entire NMD system to move forward with deployment; hence, he had decided not to authorize deployment of national missile defences for the time being. Instead, the USA would continue a robust programme of development and testing that would permit the next president to move forward with a full deployment if he chose to do so. In announcing his decision, Clinton stressed that the USA would continue to

work in the meantime with its allies and with China and Russia to 'strengthen their understanding' of US efforts to meet emerging ballistic missile threats.

Clinton's announcement was made against the background of the July 2000 failure of a prototype NMD interceptor to hit a target missile. The miss marked the second consecutive unsuccessful interception test, following an initial—albeit controversial—success in the autumn of 1999.<sup>5</sup> The test failures reinforced growing doubts about the technological feasibility of the proposed NMD system, in particular about its ability to overcome countermeasures likely to accompany a ballistic missile attack. In the wake of the US Administration's postponement of a deployment decision, a contentious political debate has arisen about the merits of alternative NMD system architectures, especially those using sea-based interceptors.

*Russian-US discussions on amending the ABM Treaty*

The USA is seeking to negotiate amendments to the ABM Treaty that will permit the deployment of a limited NMD system but at the same time not interfere with the 'basic purpose' of the treaty. The nature of these amendments is the subject of intense high-level Russian-US discussions. US officials insist that only modest changes are needed to accommodate an NMD system consisting of a single site with 100 missile interceptors based in Alaska. This primarily would involve amending the treaty to permit the USA to change the location of its designated ABM site<sup>6</sup> and amending the treaty's restrictions on early-warning and ABM-engagement radars.<sup>7</sup> The deployment of an expanded NMD system would require more comprehensive changes to the treaty, including the abandonment of the numerical limitations on ABM interceptors and bases imposed by the 1974 Protocol. It would also require an amendment of the prohibition in Article V on the use of space-based sensors to provide tracking and guidance information for ABM interceptors.

In an effort to convince their Russian counterparts that any eventual NMD system would not be directed against Russia, US officials have proposed a number of cooperative measures aimed at increasing transparency and building confidence in the area of missile defence. These reportedly included offers of US assistance with the completion of Russia's early-warning radar at Mishel'vka, near Irkutsk, in Siberia. They also included a proposal to expand a 1998 bilateral agreement on the exchange of early-warning information on worldwide launches of missiles and space vehicles. Under the proposal the

<sup>5</sup> According to officials of the US Ballistic Missile Defense Organization, a total of 19 flight-tests of the NMD system are planned.

<sup>6</sup> The Soviet Union chose to deploy (and Russia continues to maintain) an ABM system around Moscow. The USA deployed an ABM system known as Safeguard at an ICBM launch silo complex at Grand Forks, North Dakota; it achieved an IOC in 1975 but was deactivated the following year.

<sup>7</sup> The treaty would have to be amended to permit the USA to deploy an X-band tracking radar at Shemya Island, which is located more than 150 km from a proposed ABM site in central Alaska and hence prohibited under Article III. In addition, Articles III and VI would have to be amended to permit the early-warning radars to perform the function of ABM radars. In the case of the radars at Thule and Fylingdales, Article IX of the treaty (under which each of the parties undertakes not to deploy ABM systems or their components outside its territory) would have to be amended.

USA would share radar data not only on the point of origin and expected destination of missile launches but also on the entire flight trajectory.

Russian officials have rejected the idea of making any changes to the ABM Treaty to permit the deployment of an NMD system. While the US Administration has expressed interest in adapting the treaty to permit the deployment of missile defences in response to what it perceives to be emerging threats, Russian officials tend to view missile defences primarily from the perspective of the Russian–US strategic nuclear balance. US claims about the emerging ballistic missile threat posed by states such as Iran, Iraq and North Korea are dismissed as being exaggerated. Russian officials have expressed particular concern that current US missile defence plans will put in place the long lead-time elements, such as tracking radar and satellite-based sensors, which will enable the USA to rapidly expand its ‘thin’ NMD system into a ‘thick’ one. They emphasize that the treaty is the cornerstone of the entire Russian–US nuclear arms control framework and warn that the deployment of any NMD system—the prohibition of which is the basic purpose of the ABM Treaty—would lead to the collapse of that framework. Specifically, they have warned that an abrogation of the treaty by the USA would lead to a Russian withdrawal from existing arms reduction treaties, including the INF and START I treaties as well as START II. The result would be a reversal of the arms control achievements of the past two decades, with Russian and US strategic forces becoming less transparent and more unpredictable to one other. In addition, Russian military planners have repeatedly warned that Russia will respond with a variety of technical countermeasures, some of which were designed in the 1980s as a response to SDI, to any unilateral US decision to deploy an NMD system. One widely mentioned response called for Russia to develop a multiple-warhead version of its new single-warhead Topol-M (SS-27) ICBM.

### *International reactions*

Concerns about US missile defence plans are not confined to Russia. China has warned that a US decision to deploy an NMD system would have an adverse impact on regional and global stability and could lead to a reversal of the nuclear arms reduction process. A number of NATO allies have expressed concern that the abandonment or evisceration of the ABM Treaty by the USA would complicate relations with Russia and might spark a new nuclear arms race. They are also worried that a US NMD shield would contribute over the long term to ‘decoupling’ transatlantic security. In November 1999, the UN First Committee approved a draft resolution, sponsored by Belarus, China and Russia (and supported by France), calling on the parties to the ABM Treaty ‘to limit the deployment of anti-ballistic missile systems and to refrain from the deployment of such systems for a defence [of their territory]’.

## The ABM Treaty and theatre missile defence

The controversy over TMD appeared on the arms control agenda in November 1993, when the USA put forward a proposal in the SCC to clarify the ABM Treaty to permit the testing and deployment of a new generation of advanced-capability TMD systems.<sup>8</sup> The Clinton Administration argued that the new TMD systems were needed to protect US allies and troops operating overseas in future conflicts from adversaries that might be armed with long-range ballistic missiles. However, its attempts to move ahead with developing the new systems while remaining in compliance with the ABM Treaty elicited strong criticism from the Republican-controlled Congress for being unduly constrained by the treaty. At the same time, Russian officials and defence experts expressed concern that some of the planned TMD systems which the USA wanted to exclude from the strict limitations imposed by the ABM Treaty would have considerable 'inherent capabilities' against Russian strategic ballistic missiles and would thereby undermine the stabilizing logic of mutual assured destruction codified in that treaty.

### *The ABM Treaty demarcation agreement*

The demarcation talks in the SCC revolved around a series of proposals and counter-proposals for distinguishing between strategic and TMD systems; these were based largely on the technical and performance parameters of interceptor and target missiles. The goal was to establish a verifiable set of demarcation criteria that would permit the deployment of new theatre missile defences while preserving the integrity of the ABM Treaty.

In 1997 an agreement was reached in the SCC and subsequently codified in a set of Agreed Statements signed in September by the foreign ministers representing the parties (Belarus, Kazakhstan, Russia, Ukraine and the USA) to the ABM Treaty. The Agreed Statements set out a permissive definition of TMD systems based on the performance parameters of the target missiles. Specifically, the Agreed Statements declared that the land-, sea- and air-based components of both lower-velocity and higher-velocity TMD systems will be deemed compliant with the ABM Treaty if, during the testing of the TMD components or systems, the target missile does not exceed a re-entry velocity of 5.0 kilometres/second (which corresponds to a missile having a range of 3500 km).<sup>9</sup> However, they did not impose a maximum limit on the speed of higher-velocity TMD interceptor missiles, which had been a key Russian demand.

<sup>8</sup> TMD systems are not subject to the restrictions of the ABM Treaty, which limits only strategic ABM systems. However, the demarcation between strategic and theatre ballistic missiles is not defined in the treaty and the technical characteristics of defences against them overlap considerably.

<sup>9</sup> Lower-velocity TMD systems are defined as having interceptor missiles with maximum velocities below 3.0 km/s; higher-velocity TMD systems are defined as those with interceptor missiles faster than 3.0 km/s. The higher-velocity TMD systems raised more serious treaty compliance issues, since they have greater capabilities than lower-velocity systems to counter strategic ballistic missiles.

In addition, the demarcation agreement did not place restrictions on the characteristics of TMD target-acquisition and tracking systems. In particular, the Agreed Statements and associated documents did not prohibit or limit TMD systems from operating with tracking and guidance information (known as 'cueing' data) supplied by satellites and other external sensors. Russian officials had pushed vigorously for such a prohibition, since systems such as the US Army's Theater High-Altitude Area Defense missile and the US Navy's Theater-Wide missile could have significant capabilities to intercept strategic ballistic missiles if 'cued' with data from a network of early-warning radars and satellites. Moreover, even a limited use of cueing data would greatly expand the size of the area that could be defended by these systems.

The demarcation agreement must be ratified by the legislatures of all five signatory states. The terms of the agreement have come under fire from Republicans in the US Congress for allegedly hindering the development of effective missile defences to protect US troops and allies. In the light of the partisan efforts on Capitol Hill to scrap the ABM Treaty, President Clinton did not submit the demarcation agreement (or the ABM Treaty MOUS) to the Senate for its advice and consent prior to leaving office.

#### IV. The Cooperative Threat Reduction programme

The Cooperative Threat Reduction (CTR) programme (also called the Nunn–Lugar programme after the two US senators who co-sponsored the original authorizing legislation) has played the central, albeit sometimes controversial, role in international efforts to reduce the nuclear weapon-related dangers arising from the dissolution of the Soviet Union. It marked an important new dimension in nuclear arms control cooperation, since existing efforts to shape smaller and more stable force postures were eclipsed to some extent by more basic concerns about preserving the physical security of and centralized control over nuclear weapons and forestalling the emergence of new nuclear weapon states (NWS) on the territory of the former Soviet Union. Moreover, it represented an innovative response to the problem of 'nuclear leakage', which threatened to undermine the technical barrier (i.e., the difficulty in acquiring fissile material) upon which the nuclear non-proliferation regime is based.

The CTR programme began in 1991 under the auspices of the Department of Defense. Its immediate aim was to provide bilateral US financial and other assistance to Belarus, Kazakhstan, Russia and Ukraine for consolidating the former Soviet nuclear arsenal and ensuring its custodial safety. The programme has since evolved to encompass a wide range of nuclear non-proliferation and demilitarization activities across the former Soviet Union. It also provides financial and technical assistance for the destruction of chemical weapons as well as chemical and biological weapon (CBW) production facili-

ties. Several important initiatives are now funded and administered by the US Departments of Energy and State.

CTR projects fall into three general categories of activity: weapon destruction and dismantlement; chain of custody (i.e., ensuring control and safeguards over nuclear weapons and fissile material); and demilitarization and defence conversion. The largest share of funds has been earmarked for the dismantlement and destruction of SNDVs and their associated launchers in the former USSR. Supporters of the programme argue that it was instrumental in creating incentives for Ukraine to fulfil its pledges to eliminate the former Soviet nuclear weapons based on its territory; they also credit it with helping Russia to overcome financial obstacles to meeting its START I obligations.

In the summer of 1999 the USA signed protocols with Russia and Ukraine extending the original umbrella agreements by seven years, until 2006, to continue CTR programme activities in these countries. By the beginning of fiscal year 2000, the USA had committed over \$2.7 billion to the support of CTR activities in the former Soviet Union; of this amount, \$1.7 billion had been dedicated to efforts in Russia.

### **MPC&A activities**

Since 1995, the creation of an effective fissile material physical control and accounting (MPC&A) regime has become one of the programme's highest priorities. The security shortcomings identified at many nuclear facilities (such as research reactors and laboratories, fuel fabrication facilities, uranium enrichment plants, nuclear material storage sites and nuclear weapon production plants) have spurred the launching of a variety of measures aimed at preventing the theft or unauthorized diversion of highly enriched uranium (HEU), plutonium and other weapon-usable nuclear material. As of 1999, the MPC&A programme of the US Department of Energy (DOE) had undertaken joint projects to improve the security of nuclear weapon-usable material at 55 facilities in Belarus, Georgia, Kazakhstan, Latvia, Lithuania, Russia, Ukraine and Uzbekistan; in Russia, cooperative projects were under way at more than 40 sites. One of the most successful MPC&A initiatives has been the DOE-sponsored laboratory-to-laboratory programme, which brings scientists and technicians from the USA's national laboratories together with their counterparts in Russia and elsewhere to collaborate on improving fissile material control and accounting at nuclear facilities in the former Soviet Union.

### **Defence conversion efforts**

CTR funds have been used to support other activities, such as the conversion of defence-related production facilities to civilian purposes. In addition, CTR

funds have been used to support wider non-proliferation efforts, in particular in attempting to prevent a 'brain drain' from the former Soviet Union to third countries of expertise in developing and manufacturing weapons of mass destruction and the means to deliver them. The International Science and Technology Centres, which provide non-military employment to engineers and scientists in the former Soviet Union working on nuclear and chemical weapons and missile delivery system technology, are funded by CTR money as well as by contributions from other states. The DOE-funded Initiative for Proliferation Prevention (IPP) programme is also intended to address the 'brain drain' problem. In 1998, the heads of Minatom and the DOE signed the Nuclear Cities Initiative (NCI), under which the DOE will provide business training and support for commercial enterprise development at 10 closed 'nuclear cities' in Russia whose workers face mass redundancies. However, in 1999 the US Congress sharply reduced funding for both the NCI and the IPP because of doubts about the commercial viability of the conversion projects supported by these initiatives and concern that US funds appeared to be going to Russian scientists still working on weapon programmes.

### **The Highly Enriched Uranium Agreement**

Russia and the USA have reached several agreements addressing a new set of issues on the arms control agenda, namely, how to enhance the security and safe disposal of the vast quantity of fissile material left over from the former Soviet nuclear weapon complex. Disposing of the fissile material extracted from dismantled nuclear warheads is becoming an increasingly urgent task, one which poses serious technical and financial challenges for both Russia and the USA.

One of the most innovative approaches to this problem is the 1993 Highly Enriched Uranium Agreement. Under the terms of this deal, the USA will purchase from Russia over 20 years up to 500 tonnes of HEU extracted from dismantled nuclear warheads for use as civilian reactor fuel.<sup>10</sup> The two parties later agreed to establish reciprocal transparency measures to verify that the HEU purchased by the USA had in fact been extracted from newly dismantled Russian warheads rather than coming from existing stockpiles. The deal was originally valued at \$12 billion; however, the international market price of uranium subsequently collapsed, leading to a prolonged dispute between Russia and the USA over price and compensation arrangements which threatened to derail its implementation. In 1999, the deal was put back on track when Russian and US officials reached agreement on compensation for Russian shipments of low-enriched uranium (LEU) to the USA.

<sup>10</sup> The agreement specifies that Russia will blend down the ex-warhead HEU with low-enriched uranium (LEU) to make LEU enriched to approximately 4.4%; not less than 10 t of HEU per year will be purchased in the first 5 years, and not less than 30 t per year thereafter.



## V. The Non-Proliferation Treaty

The NPT forms the principal legal foundation of the broader regime of rules and constraints designed to prevent the spread of nuclear weapons as well as weapon-usable fissile material and bomb-making technology; it is the only global legal instrument through which a state can commit itself to NNWS status. The treaty was signed on 1 July 1968 and entered into force on 5 March 1970. It mandated that five years after its entry into force a conference of the parties should be convened to review its implementation and that at intervals of five years thereafter conferences could be held if a majority of parties agreed to do so. These review conferences have been convened every five years since 1975. At the Review and Extension Conference, held in 1995, the decision was taken to make the NPT of indefinite duration.

Beginning with the first review conference, there has been a steady increase in the number of parties to the treaty. As of 1 January 2000, there were 187 parties to the NPT; only 4 UN member states had not joined the treaty: Cuba, India, Israel and Pakistan.

### Treaty provisions

The NPT parties are divided into nuclear weapon states and non-nuclear weapon states, with a number of basic obligations following therefrom.<sup>11</sup> The treaty prohibits the transfer by NWS parties of nuclear weapons or other nuclear explosive devices as well as the assistance, encouragement or inducement of any NNWS to manufacture or otherwise acquire such weapons or devices. It prohibits NNWS parties from undertaking to manufacture or otherwise acquire nuclear weapons or other nuclear explosive devices. These parties are also prohibited from exporting nuclear materials or equipment to any NNWS unless that material or equipment is subject to the safeguard arrangements specified in the treaty. The NNWS parties are required to conclude so-called 'full-scope' safeguard agreements with the International Atomic Energy Agency (IAEA). These arrangements are designed to verify that a state is not diverting nuclear materials or equipment from peaceful uses to nuclear explosives programmes.

In order to make adherence to the treaty more attractive and to minimize charges of discrimination, three provisions were added during the negotiation process. Article IV declares that nothing in the treaty should be interpreted as affecting the 'inalienable right' of all parties to participate fully in the international exchange of equipment, materials and scientific information for the development of nuclear energy for peaceful purposes.<sup>12</sup> Article V guarantees the sharing of any peaceful benefits from nuclear explosives. Article VI man-

<sup>11</sup> As defined in Article IX, only states that have manufactured and exploded a nuclear device prior to 1 Jan. 1967 are recognized as nuclear weapon states. By this definition, China, France, Russia, the UK and the USA are nuclear weapon states.

<sup>12</sup> Some parties have complained that the restrictive export policies of the main nuclear supplier states have been inconsistent with this article and that the benefits that they envisaged have not been realized.

dates that all parties must ‘pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament’.<sup>13</sup> The slow progress made in implementing the nuclear disarmament commitment codified in Article VI has long been one of the most contentious issues among the NPT parties.

### **Evolution of the NPT**

The NPT contained a clause, in Article X, which had the effect of postponing any decision on the duration of the accord for 25 years after its entry into force. In May 1995, the NPT Review and Extension Conference decided without a vote to recognize that a majority of the parties favoured the treaty having an indefinite duration. The decision to indefinitely extend the NPT was one of three decisions which were adopted simultaneously and without a vote at the Conference. The other two decision documents mandated changes in the way NPT-related issues are to be addressed in the future. One of these, Strengthening the Review Process, involved new measures for reviewing the implementation of the treaty. The other, Principles and Objectives for Nuclear Non-Proliferation and Disarmament, involved establishing a set of detailed criteria or ‘yardsticks’ for evaluating that implementation.<sup>14</sup> In addition, the parties adopted a Resolution on the Middle East, the approval of which some Arab and non-aligned states had linked politically to the decision on the duration of the NPT.<sup>15</sup>

#### *NPT PrepCom meetings*

The 1995 NPT Review and Extension Conference sought to strengthen the review process by requiring that Preparatory Committee (PrepCom) meetings be held in each of the three years leading up to the quinquennial review conferences. The purpose of these PrepCom meetings, which traditionally had dealt almost exclusively with procedural issues, is to ‘consider principles, objectives and ways in order to promote the full implementation of the Treaty, as well as its universality, and to make recommendations thereon to the Review Conference’.

<sup>13</sup> In its 1996 decision regarding the legality of the possession and use of nuclear weapons, the International Court of Justice in The Hague ruled unanimously that there exists as part of customary international law ‘an obligation to pursue in good faith and bring to a conclusion negotiations leading to nuclear disarmament’.

<sup>14</sup> The Principles and Objectives are grouped under 7 headings: universality; non-proliferation; nuclear disarmament; nuclear weapon-free zones; security assurances; safeguards; and peaceful uses of nuclear energy.

<sup>15</sup> The Resolution on the Middle East was sponsored by the USA (along with Russia and the UK). It amended a resolution sponsored by Arab states calling on Israel to accede to the treaty ‘without delay’; these states had threatened to withhold their support for indefinitely extending the NPT unless such a document was included in the package of decisions. As approved, the resolution did not specifically name Israel but called for the universality of the NPT and the implementation of IAEA safeguards by all states in the region.

The PrepCom meetings for the year 2000 Review Conference, in which a total of 158 states parties participated, were held in 1997, 1998 and 1999. The meetings were handicapped by the lack of a shared view among the parties about what kind of recommendations should be made to the Review Conference and what their status should be. This disagreement reflected a deeper division between the nuclear 'haves' and 'have-nots' over the role of the PrepCom in the strengthened review process, its principles and objectives, and the procedures governing its activities. Several NNWS sought to give the PrepCom a more substantive role in the review process, particularly with regard to implementing the nuclear disarmament commitments contained in the NPT and the programme of action outlined in the 1995 Principles and Objectives. At the 1999 PrepCom meeting, the New Agenda Coalition (NAC), which emerged out of a 1998 initiative launched by the foreign ministers of eight NNWS (Brazil, Egypt, Ireland, Mexico, New Zealand, Slovenia, South Africa and Sweden), presented a working paper that outlined specific steps for promoting progress towards nuclear disarmament. These efforts ran into consistent opposition from the five NWS, which sought to limit the role of the PrepCom to compiling a list of proposals to be taken up at the 2000 Review Conference and deciding on the procedural arrangements for that conference. This lack of progress towards implementing the programme of action outlined in the Principles and Objectives document disappointed proponents of the notion of 'permanence through accountability' that underlies the strengthened NPT review process and raised international concern about the vitality of the NPT following its indefinite extension.

### **The 2000 NPT Review Conference**

The 2000 NPT Review Conference was held in New York from 24 April to 19 May 2000. The meeting was marked by a growing appreciation among many parties that cooperation and timely action were needed to prevent further erosion of the NPT regime. Despite the pessimistic assessments of the prospects for a successful outcome, the Review Conference ended with the adoption by consensus of a Final Declaration. This was the first time since 1985 that an NPT Review Conference had been able to adopt a Final Declaration. The text not only looked backwards in review but also contained an important forward-looking element setting out a number of concrete nuclear disarmament goals.

More specifically, the five NWS parties—at the insistence of an NAC-led coalition of NNWS parties—collectively made an 'unequivocal undertaking to accomplish the total elimination of their nuclear arsenals leading to nuclear disarmament to which all Parties are committed under Article VI'. The NWS also committed themselves in the Final Declaration to pursuing a programme of action on arms control and disarmament containing the following six elements: further unilateral efforts to reduce their nuclear arsenals; increased transparency with regard to their nuclear weapon capabilities as a voluntary

confidence-building measure to support further progress towards disarmament; further reductions in non-strategic (tactical) nuclear weapons; agreed measures to further reduce the operational status of nuclear weapon systems; a diminishing role for nuclear weapons in security policies and military planning; and the engagement of all the NWS (i.e., China, France and the UK as well as Russia and the USA) in multilateral disarmament negotiations 'as soon as appropriate'.

The Final Declaration was noteworthy in that Israel, which was mentioned by name for the first time in such a document, was 'reminded of the importance' of acceding to the NPT and placing all of its nuclear facilities under comprehensive safeguards. The Final Declaration also pointedly noted that 'notwithstanding their nuclear tests, India and Pakistan do not have the status of nuclear weapon states'. In the wake of the conference's unexpectedly successful conclusion, many observers argued that the main question now is how far the parties, in particular the NWS parties, will be willing to go in translating their words into deeds.

## VI. The North Korean–US Agreed Framework

The 1994 North Korean–US Agreed Framework was the product of intense high-level diplomatic bargaining to resolve the crisis arising from North Korea's non-compliance with its NPT obligations to allow IAEA inspection of its nuclear programme. North Korea's behaviour had raised suspicions, particularly in the USA, that it was illicitly diverting separated plutonium from a research reactor for use in the manufacture of nuclear weapons.

Under the agreement, North Korea halted the operation of the 5-megawatt-electric (MWe) gas-graphite research reactor and plutonium reprocessing plant at Yongbyon and has frozen construction work on two larger reactors (a 50-MWe reactor at Yongbyon and a 200-MWe reactor at Taechon). In return the USA organized, in cooperation with Japan and South Korea, an international consortium—the Korean Peninsula Energy Development Organization—which is responsible for providing North Korea with two 1000-MWe light-water reactors (LWRs). The lion's share of the estimated \$4.6 billion cost of the LWR project is to be covered by a \$3.2 billion contribution from South Korea, with Japan contributing \$1 billion; the European Union has also agreed to contribute to the project. The USA has assumed the main responsibility for underwriting the costs of compensatory oil supplies (500 000 metric tonnes of heavy fuel oil per annum) to North Korea until the new reactors are in operation. The deal has come under some criticism for allegedly rewarding North Korea's non-compliance with its NPT commitments and for setting a precedent that will encourage other potential proliferators.

The Agreed Framework appeared to be on the brink of collapse on several occasions because of a series of disputes between North Korea and the USA

related to the implementation of the accord. It had also been jeopardized by international concern over North Korea's ballistic missile programme. In 1999 there was a resolution of the dispute which had arisen between North Korea and the USA the previous year over US allegations that North Korea was building an underground nuclear weapon-related facility at Kumchang-ni, approximately 50 km north-west of its nuclear plant at Yongbyon. After difficult negotiations, a US inspection team was granted access to the site and concluded that it did not appear to be configured to support any large industrial nuclear functions and did not otherwise violate the Agreed Framework.

Construction work on the first LWR got under way in the spring of 2000. Work will be halted when the reactor containment building is completed, pending the satisfactory conclusion of an IAEA special inspection to clarify how North Korea disposed of its spent reactor fuel. Once North Korea is deemed to be in compliance with its full-scope IAEA safeguards agreement, the work on the LWRs will resume; North Korea will then proceed with a phased dismantling of its nuclear plants and related facilities. The first of the reactors is scheduled to be completed in 2007, with the second to be completed by the end of the following year.

## VII. The Comprehensive Nuclear Test-Ban Treaty

The Comprehensive Nuclear Test-Ban Treaty (CTBT) was opened for signature on 24 September 1996. The treaty had been negotiated in the Conference on Disarmament (CD) between January 1994 and August 1996. However, the CD was unable to achieve a consensus to adopt the final draft of the treaty text because of objections from India, which had reversed its earlier support for the treaty. The draft text was forwarded to the UN General Assembly by a group of 'Friends of the Treaty', led by Australia, and was adopted overwhelmingly by the General Assembly on 10 September 1996.

The vote in the General Assembly came after more than 2000 nuclear explosions had been carried out since 1945 (table 28.4). The idea of suspending nuclear weapon tests had first been proposed by Indian Prime Minister Jawaharlal Nehru in 1954. In 1963 the Soviet Union and the USA, along with the UK, signed the Partial Test Ban Treaty, prohibiting nuclear explosions in the atmosphere, in outer space and under water. However, the parties failed to make the ban comprehensive (i.e., to prohibit underground explosions) because of differences over the number of on-site inspections to be permitted. In 1974 the USA and the USSR reached agreement on the Threshold Test Ban Treaty, which bans any underground nuclear weapon explosion test having a yield greater than 150 kilotons.

**Table 28.4.** Estimated number of nuclear tests, 1945–98<sup>a</sup>

Country	Year of first test	Year of last test	Total number of tests
China	1964	1996	45
France	1960	1996	210
India	1974	1998	3 <sup>b</sup>
Pakistan	1998	1998	2 <sup>c</sup>
Russia/USSR	1949	1990	715
UK <sup>d</sup>	1952	1991	45
USA	1945	1992	1 032

<sup>a</sup> This table uses the definition of a nuclear test stipulated in the 1990 Protocol to the 1974 Threshold Test Ban Treaty, which states that a test is a single nuclear explosion conducted at a test site 'or two or more nuclear explosions conducted at a test site within an area delineated by a circle having a diameter of 2 kilometres and conducted within a total time period of 0.1 seconds'. The figures given here include peaceful nuclear explosions (PNEs) as well as nuclear weapon tests.

<sup>b</sup> India's 3 simultaneous detonations on 11 May 1998 are counted here as 1 test, as are its 2 simultaneous detonations on 13 May 1998.

<sup>c</sup> Pakistan's 5 simultaneous detonations on 28 May 1998 are counted here as 1 test.

<sup>d</sup> All British tests from 1962 were conducted jointly with the USA at the Nevada Test Site.

Source: SIPRI Yearbook 1999: *Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1999), pp. 562–64.

## Treaty provisions

### Scope

The CTBT prohibits the parties from carrying out 'any nuclear weapon test explosion or any other nuclear explosion'; it further prohibits the parties from 'causing, encouraging or in any way participating in the carrying out' of any nuclear explosion. The treaty does not permit peaceful nuclear explosions, although at China's insistence the CTBT review conferences may consider the possibility of permitting such explosions. In imposing a 'true zero-yield' ban, the treaty is understood to implicitly prohibit hydronuclear experiments (HNEs).<sup>16</sup> The controversy over whether or not to permit HNEs, which raise a host of difficult verification problems, had been one of the most vexing during the test ban negotiations in Geneva. Significantly, the CTBT does not prohibit so-called sub-critical tests.<sup>17</sup> Both Russia and the USA have carried out sub-critical experiments in laboratory settings. Critics complain that such tests contravene the spirit of the accord by enabling states to maintain existing

<sup>16</sup> Hydronuclear experiments involve explosions in which a nuclear fission chain reaction is briefly sustained and a very small amount of nuclear energy is released. The term is an imprecise one, and there is no generally agreed yield at which an explosion ceases to be an HNE and becomes a nuclear weapon test explosion.

<sup>17</sup> In sub-critical experiments, the configuration and quantities of explosives and nuclear materials used do not produce a critical mass (i.e., a self-sustaining nuclear fission chain reaction).

nuclear warheads in perpetuum or to carry out modernization programmes based on new warhead designs.

### *Verification and inspections*

The CTBT and associated Protocol provide for the establishment of a comprehensive verification regime consisting of an International Monitoring System (IMS), on-site inspections, confidence-building measures and mechanisms for consultation and clarification. It also explicitly provides for the use of NTM in decision making about treaty compliance issues. If suspicions about an event cannot be resolved through consultation and clarification, each party has the right to request an on-site inspection. Requests for on-site inspections must be approved by at least 30 affirmative votes of members of the CTBT's 51-member Executive Council.

The purpose of the IMS, which is being constructed under the auspices of the Technical Secretariat of the Comprehensive Test-Ban Treaty Organization, is to detect and identify nuclear explosions prohibited under the treaty. When fully operational, the IMS will have a network of 50 primary and 120 auxiliary seismological stations equipped to detect seismic activity and to distinguish between natural events, such as earthquakes, and nuclear explosions. It will also include 80 radionuclide, 60 infrasound and 11 hydroacoustic stations. These monitoring stations will transmit data from the IMS to the International Data Centre in Vienna, which will then make the data available to all states parties.

### *Entry into force*

The CTBT will enter into force 180 days after it has been ratified by the 44 states members of the CD with nuclear power or research reactors on their territories, as listed in Annexe 2 of the treaty. This requirement, which was the source of considerable controversy during the closing stages of the CTBT negotiations, reflected the view that the treaty must capture a certain minimum set of nuclear weapon-capable states to be effective in promoting non-proliferation objectives. This has proved to be problematic because several of these 44 states have been reluctant or unwilling to sign and ratify the treaty. The treaty specifies that if entry into force has not been achieved three years after the date of the anniversary of its opening for signature, a conference of the states that have already deposited their instruments of ratification may convene annually to consider and decide by consensus what measures 'consistent with international law' may be undertaken to accelerate the ratification process in order to facilitate the treaty's entry into force. The first such conference took place in Vienna in October 1999. It issued a 12-point Final Declaration that *inter alia* called on all states, in particular those whose ratification was needed for the treaty's entry into force, to join it as soon as possible.

**Table 28.5.** Status of CTBT ratification, 44 states listed in Annexe 2 of the treaty, as of 1 October 2000

Status	States
Ratified CTBT	Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Chile, Finland, France, Germany, Hungary, Italy, Japan, Mexico, Netherlands, Norway, Peru, Poland, Romania, Russia, Slovakia, South Africa, South Korea, Spain, Sweden, Switzerland, Turkey, UK
Signed but not ratified CTBT	Algeria, China, Colombia, Democratic Republic of the Congo, Egypt, Indonesia, Iran, Israel, Ukraine, USA,* Viet Nam
Not signed CTBT	India, North Korea, Pakistan

\* On 13 Oct. 1999 the US Senate rejected ratification of the treaty.

Source: The Comprehensive Nuclear Test-Ban Treaty Organization.

### Status of the treaty

As of 1 October 2000, the CTBT had been signed by 160 states and ratified by 65 of these states; of the 44 states whose ratification is required for the CTBT to enter into force, 30 had ratified the treaty and an additional 11 states had signed but not ratified the treaty (table 28.5).

The future of the CTBT was complicated when the US Senate voted in October 1999 to reject ratification of the treaty. Aside from partisan political considerations, opposition in the Senate to ratifying the CTBT centred largely on two issues. The first was whether compliance with the treaty's 'zero-yield' test ban could be adequately verified. The second main issue had to do with concerns about the potentially negative long-term impact of a permanent halt to nuclear testing on the safety and reliability of the USA's nuclear arsenal.

The Senate vote marked at least a temporary setback for international efforts to bring the CTBT into force, since the USA is one of the 44 states listed in Annexe 2 of the treaty. It also served to heighten international concern about the health of the nuclear non-proliferation regime. In many countries the CTBT has been seen as a litmus test of the willingness of the NWS to fulfil their NPT commitment to end the nuclear arms race. In addition, the treaty's defeat in the USA weakened the USA's crucially important leadership role within that regime.

However, the vote did not in itself undermine the no-testing norm codified in the CTBT. It did not lead other states with nuclear weapon capabilities—including India and Pakistan—to abandon their self-imposed moratoria on nuclear testing. The outpouring of international condemnation which greeted the US Senate's decision suggested that the no-testing norm enjoys widespread support. This norm has already served to constrain the nuclear testing plans of all five NWS over the past decade. In some cases these tests



would have allowed the development and certification of the technologies underlying new warhead designs, such as for very-low-yield nuclear warheads (so-called mini-nukes) which are envisioned in some nuclear war-fighting doctrines. In this regard, the CTBT is already having an effect on capping 'vertical' proliferation in spite of its lack of legal standing.

## VIII. The Fissile Material Cut-off Treaty

The idea of halting or limiting the production of fissile material for military purposes as a verifiable means to reduce, or at least cap, stockpiles of nuclear weapons was originally proposed in the 1950s. In March 1995 the CD adopted a mandate to 'negotiate a non-discriminatory, multilateral and effectively verifiable treaty banning the production of fissile material for nuclear weapons or other nuclear explosive devices' (a Fissile Material Cut-off Treaty, FMCT). However, the 'Shannon mandate' (named after Canadian Ambassador Gerald Shannon, who was appointed Special Co-ordinator by the CD) left unresolved key differences among CD member states over the scope of the proposed convention and over how it should contribute to nuclear disarmament. The result was a delay until August 1998 when the CD, which operates on the consensus principle, was finally able to reach agreement on establishing an ad hoc committee to begin negotiation of a fissile material production ban on the basis of the Shannon mandate. However, there remained considerable disagreement about the scope of the ban, reflecting divergent security concerns and broader differences over the purpose of the proposed FMCT.

### **Obstacles to negotiating a fissile material ban**

There had been two main stumbling blocks in forming an ad hoc committee to open negotiations on the convention. The first was the Indian-led demand that the FMCT negotiations be placed in the context of a time-bound framework for nuclear disarmament. This demand gained support from the Group of 21 (G-21) non-aligned states within the CD but was rejected by France, Russia, the UK and the USA, which have consistently refused to consider establishing an ad hoc committee on nuclear disarmament. In the summer of 1998 India said that it would no longer insist on a linkage between a fissile material treaty and a time-bound framework for nuclear disarmament. To accommodate the G-21 demand that the treaty should be a 'nuclear disarmament measure and not just a non-proliferation measure', the P5 states (i.e., the five permanent members of the UN Security Council, which are also the NPT-defined NWS) agreed to establish the committee under item 1 of the CD agenda, 'The cessation of the nuclear arms race and nuclear disarmament'.

The second obstacle was the dispute over the scope of the treaty. Egypt, Pakistan and other states argued that the ban should go beyond mandating a cut-off of fissile material production and include placement of existing stockpiles of fissile material under international safeguards. This proposal generated

**Table 28.6.** Estimated inventories of weapon-grade plutonium and uranium in the NPT-defined nuclear weapon states, as of 31 December 1994<sup>a</sup>

Figures are central estimates, in tonnes.

Country or region	Plutonium	Highly enriched uranium <sup>b</sup>
Former Soviet Union	131 ± 25%	1 050 ± 30%
USA	85 ± 3%	645 ± 10%
France	5.0 ± 30%	24 ± 20%
China	4.0 ± 50%	20 ± 25%
UK	3.1 ± 20%	8 ± 25%

<sup>a</sup> Figures are after losses and draw-downs, which comprise material consumed in or assigned to naval, civil and production reactors, consumed in nuclear weapon tests and lost during production, processing and warhead fabrication.

<sup>b</sup> Tabulated in terms of WGU (weapon-grade uranium) equivalent, which is defined as the amount of 93% enriched weapon-grade uranium that could have been produced.

Source: Albright, D., Berkhout, F. and Walker, W., SIPRI, *Plutonium and Highly Enriched Uranium 1996: World Inventories, Capabilities and Policies* (Oxford University Press: Oxford, 1997), pp. 401–402.

strong opposition from the P5 states, which have large inventories of fissile material for military purposes, and, among others, India. These states argued that the mandate should apply only to future fissile material production.

The decision in 1998 to establish an ad hoc committee on the basis of the Shannon mandate did not settle the issue of existing fissile material stocks, which delegates decided not to take up until the negotiations were under way. The P5 states and India have reiterated their views that under the Shannon mandate existing stockpiles fall outside the purview of the ban. By contrast, delegations from the many non-aligned states argue that the treaty regime will be a meaningful disarmament measure only if it applies to current stockpiles and future production. In the Middle East, where Israel's ambiguous nuclear weapon status has complicated nuclear non-proliferation and disarmament measures, Egypt and other Arab states insist that all stocks of weapon-usable fissile materials will have to be declared and be subject to inspection and inventory under international supervision and control.

The CD concluded its 2000 session having again failed to open negotiations on a treaty to ban the production of fissile material for military purposes, despite having established the ad hoc negotiating committee. As in 1999, negotiations were blocked by a procedural impasse arising from the failure of the CD to reach agreement on a programme of work for the year.<sup>18</sup> In the

<sup>18</sup> There were 2 principal issues preventing agreement on a work programme. The first was connected with the long-standing demand from the G-21 for the establishment of an ad hoc committee on nuclear disarmament. The second issue was connected with Chinese-led calls for the re-establishment of an ad hoc negotiating committee under item 3 of the CD agenda, 'Prevention of an arms race in outer space' (PAROS). China, along with Russia and some other member states, has argued that the 'weaponization' of outer space has become an urgent topic for the CD to address in the light of the USA's plans to move ahead with preparations for developing an NMD system.

**Table 28.7.** Estimated inventories of weapon-grade plutonium and uranium in the de facto nuclear weapon states, produced for nuclear weapon purposes, as of 31 December 1994

Figures are central estimates, in kilogrammes.

Country	Plutonium	Highly enriched uranium
Israel	440	? <sup>a</sup>
India	300	Negligible
Pakistan	Negligible	210
North Korea <sup>b</sup>	25–40	0
South Africa <sup>c</sup>	0	400 <sup>d</sup>

<sup>a</sup> It is not known from public information whether Israel has a uranium enrichment capability.

<sup>b</sup> North Korea has frozen its production of plutonium under the terms of the 1994 Agreed Framework. It is estimated that North Korea had accumulated enough weapon-grade plutonium for at least 5–8 nuclear weapons.

<sup>c</sup> South Africa dismantled its nuclear weapon programme and joined the NPT as a non-nuclear weapon state in 1991.

<sup>d</sup> All HEU enriched above 80% <sup>235</sup>U.

Sources: Albright, D., Berkhout, F. and Walker, W., SIPRI, *Plutonium and Highly Enriched Uranium 1996: World Inventories, Capabilities and Policies* (Oxford University Press: Oxford, 1997), pp. 402–403; and United States General Accounting Office, *Nuclear Nonproliferation: Implications of the US/North Korean Agreement on Nuclear Issues* (GAO/RCED/NSIAD-97-8), Oct. 1996, p. 3.

absence of an agreed work programme, some CD member states have been unwilling to allow the ad hoc committee on the FMCT to convene. This impasse resulted in the CD not conducting any negotiations during its 2000 session and led to renewed calls for changes in the CD's structure and procedures.

## IX. Nuclear weapon-free zones

The increasing number of nuclear weapon-free zones (NWFZs) either in existence or under consideration reflects the disapproval of the international community of the acquisition, use or threat of use of nuclear weapons. Regional arrangements establishing such zones are important legal components of the global nuclear non-proliferation regime and supplement international efforts to prevent the emergence of new nuclear weapon states. The establishment of NWFZs has also been an instrument for regulating nuclear weapon deployments by the five NPT-defined nuclear weapon states and, during the cold war, for constraining the superpower military competition. Proposals are being discussed or negotiated for NWFZs in Central Asia, North-East Asia, South Asia, Central and Eastern Europe, the Middle East and the southern hemisphere. In addition, certain uninhabited areas have been formally denuclearized: Antarc-

**Table 28.8.** Summary of the nuclear weapon-free zone treaties, as of 1 January 1999

Treaty regime	Zone of application	Date of signature	Date of entry into force
Treaty of Tlatelolco	Latin America and the Caribbean	14 Feb. 1967	22 Apr. 1968
Treaty of Rarotonga	South Pacific	6 Aug. 1985	11 Dec. 1986
Treaty of Bangkok	South-East Asia	15 Dec. 1995	27 Mar. 1997
Treaty of Pelindaba	Africa	11 Apr. 1999	— <sup>a</sup>

<sup>a</sup> Will enter into force upon the 28th ratification.

Sources: *SIPRI Yearbook 1998: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1998), appendix 10B; and *SIPRI Yearbook 1999: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1999), annexe A.

tica, in the 1959 Antarctic Treaty; outer space, the moon and other celestial bodies, in the 1967 Outer Space Treaty and the 1979 Moon Agreement; and the seabed, the ocean floor and the subsoil thereof, in the 1971 Seabed Treaty. Generally speaking, the treaties establishing NWFZs share certain basic provisions. The parties undertake not to develop, manufacture or otherwise acquire, possess or have control over nuclear weapons and not to allow any other state to develop, manufacture or otherwise acquire nuclear weapons or station, test or use them on their territory. In some treaties they undertake to conclude safeguards agreements with the IAEA. Typically, the treaties creating NWFZs also contain protocols codifying so-called negative security assurances, under which the NWS are to undertake not to use or threaten to use nuclear weapons against any state party to the treaty.

## X. Conclusion

The late 1990s have witnessed a stagnation of nuclear arms control progress which has disappointed the optimistic expectations arising from the achievements made earlier in the decade. Many of the key items of 'unfinished business' on the multilateral nuclear arms control and disarmament agenda remain unfinished. The CTBT continues to hang in limbo. The negotiations in the CD on a global ban on the production of fissile material for nuclear explosives have yet to get under way and face considerable obstacles. The prospects for making further reductions in strategic nuclear arsenals, which remain at levels which many arms control advocates consider to be disappointingly high 10 years after the end of the cold war, also remain uncertain. The decision of the Russian Duma to ratify the long-stalled START II Treaty cleared the way for deeper cuts and important new arms control initiatives to be negotiated within the framework of a START III treaty. However, these negotiations are jeopardized by new controversies over the USA's ballistic missile defence programmes and proposals for amending the ABM Treaty.

The late 1990s have also witnessed the re-emergence of serious concerns about the vitality of the NPT regime and broader international efforts to curb the proliferation of nuclear weapons. The nuclear weapon states are perceived by many non-nuclear weapon states as having become complacent since the treaty's indefinite extension in implementing their nuclear disarmament commitment. The lingering crises over the suspected nuclear weapon programmes in Iraq and North Korea cast doubt on the ability of the international community to respond to allegations of non-compliance with NPT obligations and has led some observers to conclude that support for the non-proliferation goals codified in the NPT is not particularly robust. The nuclear weapon tests carried out by India and Pakistan in 1998 also contributed to the sense of crisis within the nuclear non-proliferation regime. Although the tests did not violate the NPT, since neither state is a party to the treaty, they were a blow to the idea that the treaty regime enjoyed universal normative legitimacy. They also served to raise anew the question of how the international community should respond to actions taken by states which violate important norms and principles enshrined in multilateral arms control treaties to which they are not parties. Together, these developments have contributed to a growing sense that the non-proliferation regime is under siege from within and outside by a serious set of challenges.

While it would be premature to proclaim the death of nuclear arms control, the process is clearly in danger of becoming moribund. Revivifying this process will require a renewed and sustained commitment from the international community, especially from the nuclear weapon states, to achieving concrete progress on the existing arms control agenda. More important, however, it also will require them to adopt new approaches to arms control as an instrument for addressing nuclear weapon-related risks and challenges.

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## 29. The elimination of chemical and biological weapons

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*Jean Pascal Zanders*

### I. Introduction

This paper presents an overview of the 1993 Chemical Weapons Convention (CWC) and the 1972 Biological and Toxin Weapons Convention (BTWC). It also addresses the destruction of chemical and biological weapons (CBW) in Iraq mandated by United Nations Security Council Resolution 687 (1991), which lays down the conditions for the ceasefire in the 1991 Persian Gulf War. The final section describes the efforts of the United Nations Special Commission on Iraq (UNSCOM) to eliminate Iraq's CBW capabilities between 1991 and 1999 and UNSCOM's replacement by a new body, the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC), in December 1999.

Progress on the implementation of the CWC continues. The four declared possessors of chemical weapons (CW)—India, South Korea, Russia and the USA—have begun destruction operations, and previously outstanding issues are gradually being resolved. Nevertheless, problems relating to the timely execution of certain treaty obligations by some states continue to generate tension among parties to the convention.

The parties to the BTWC are negotiating an additional legally binding protocol in order to equip the convention with instruments to monitor and enforce compliance and to organize international cooperation between states parties for peaceful purposes. Progress is being made on several technical issues, and the industrialized and developing countries have undertaken initiatives to bridge their differences on non-proliferation and technical cooperation. However, the issue of monitoring compliance with the future regime remains the main stumbling block. Some hope nevertheless exists that the negotiations can be concluded successfully before the fifth Review Conference of the BTWC is held, in 2001.

In 1999 UNSCOM ceased to exist. Its demise was a long-drawn-out process which involved the systematic obstruction of the UNSCOM inspections by Iraq and highly charged political altercations among the permanent members of the UN Security Council. The failure of UNSCOM has potential long-term implications. Between 1991 and 1999 the Security Council, succumbing to the short-term interests of individual members, proved unable to deal with a blatant and determined violator of its own rules as well as the generally accepted norms against the acquisition, possession or use of chemical, bio-

logical or nuclear weapons. For major disarmament treaties such as the BTWC and the CWC, the Security Council is the ultimate arbiter in the case of material breaches. The experience of UNSCOM raises serious doubts about the Security Council's ability or willingness to uphold fundamental norms in the name of the international community in the case of a determined and persistent violator. Few cases will be as clear-cut as that of Iraq.

## II. The Chemical Weapons Convention

The CWC is without doubt the strongest global disarmament treaty to date. It contains elaborate verification measures and lays down certain rules of state behaviour in time of peace and war. The overall purpose of the CWC is to prevent the possibility of CW use. States parties can never under any circumstances engage in any military preparations for offensive chemical warfare and therefore forgo the option of in-kind deterrence or retaliation. In order to oversee effective implementation the CWC has established an international body, the Organisation for the Prohibition of Chemical Weapons (OPCW), located in The Hague.

The CWC was opened for signature on 13 January 1993 and entered into force on 29 April 1997 following the deposit of the required 65th ratification 180 days earlier. As of 1 January 2001, 141 states had become parties and an additional 35 states had signed the convention. The convention has been successful in attracting the ratifications of states in regions of intense conflict. The OPCW continues to undertake diplomatic steps to secure further ratifications or accessions, especially by states in Africa and the Middle East.

A key element in defining the CWC's scope is the so-called general purpose criterion. Under the general purpose criterion, certain purposes for which objects may be employed are prohibited, but not the objects themselves. The convention thus defines CW as any toxic chemical or its precursors intended for purposes other than those not prohibited by the CWC as well as munitions, devices or equipment specifically designed to be used with them. Permitted purposes include industrial, agricultural and medical applications, research and development of protection and defence against CW, and domestic law enforcement and riot control.

The general purpose criterion affords two major advantages. First, the CWC is not restricted to compounds which are explicitly listed in the convention. Thus, the discovery of a new potential chemical warfare agent will not undermine the CWC regime because it will be automatically banned if it has no justifiable non-military purpose. Moreover, the research installation or production facility where the new CW agent was made can become the object of inspection under the CWC. Second, the general purpose criterion allows the international community to deal with dual-use commodities. Many of the chemicals covered by the convention have widespread civilian application. Because it is possible to distinguish between permitted and prohibited activ-

ities, it is not necessary to determine the intrinsic threat posed by a chemical compound or a piece of equipment.

One of the major objectives of the CWC is the verified destruction of all existing CW stockpiles and production and other CW-related facilities within 10 years after entry into force. Not more than an extra five years may be granted in exceptional cases. A state party is responsible for the destruction of all CW and production and other CW-related facilities on its territory or under its jurisdiction and control, as well as for any CW it may have abandoned after 1925 on the territory of another party without the consent of the latter. It must also declare abandoned CW and old CW which were produced either before 1925 or between 1925 and 1946 but which have deteriorated to such an extent that they are no longer usable. All locations where CW are stored or destroyed are subject to verification through on-site inspection and monitoring with on-site instruments. Destruction of the CW agents must be essentially irreversible so that the resulting chemical compounds are unsuitable for CW production. Parties cannot dispose of CW by dumping them in water, burying them or burning CW in open pits. Parties must assign the highest priority to ensuring the protection of people and the environment during the transport, sampling, storage and destruction of CW.

The CWC also establishes a comprehensive verification regime to ensure that no illegal activities take place within states that are parties to the CWC. The regime affects both the military sector and civilian chemical industry. It seeks to balance confidence in compliance with the protection of national security interests and industrial proprietary information. Verification consists essentially of regular reporting requirements, on-site inspections and, in the case of well-founded suspicions, challenge inspections.

The activities of the chemical industry are monitored through declarations and on-site inspections. The nature of an industrial facility's obligations depends on the types and quantities of chemicals it produces, processes, transfers and consumes. The convention categorizes chemical compounds of particular concern in schedules depending on their relative importance for the production of CW agents or for legitimate civilian manufacturing processes. Each list has different reporting requirements. Schedule 1 contains compounds that can be used as CW and that have few uses for permitted purposes. They are subject to the most stringent controls. Schedule 2 includes chemicals that are key precursors to CW but which generally have greater commercial application. Schedule 3 chemicals can be used to produce CW but are also used in large quantities for non-prohibited purposes. The convention also places reporting requirements on firms which produce discrete organic chemicals that are not on any of the schedules; it also contains special requirements for firms that produce unscheduled discrete organic chemicals with the elements fluorine, phosphorus or sulphur.

If non-compliance with the CWC is suspected, any state party has the right to request an on-site challenge inspection on the territory of another party. The inspected party may neither refuse an inspection nor improperly restrict the



access of the inspection team. The challenge inspection is a politically delicate instrument and serves as a safety net should the routine system fail.

While the CWC bans chemical warfare, parties can nonetheless be faced with a chemical threat or the use of CW by another political entity. The CWC therefore provides for a range of remedial or preventive measures. For instance, it explicitly authorizes parties to equip themselves with the most efficient protection against CW agents. As chemical agents affect their target through environmental mediation, interposing a barrier will significantly reduce the military advantage an attacker might hope to gain from the use of chemical weapons and thus diminish their attraction. Moreover, the CWC stipulates that each party has the right to request and receive assistance and protection against the use or threat of use of CW. The requests for assistance and protection must be made through the OPCW, a guarantee for non-discriminatory application.

The CWC also deals with the transfer of chemicals among states parties and between parties and non-parties. In the past, the inability to distinguish unambiguously between chemicals used as warfare agents and those that have peaceful industrial purposes rendered any ban on their trade or transfer impractical because of the impossibility of verifying the end-use in the recipient state. The general purpose criterion addresses this problem. Each party is expressly forbidden to transfer chemical weapons, directly or indirectly, to other parties, non-parties or sub-national entities under any circumstances. It further disallows any activity that would assist, encourage or induce anyone to engage in an undertaking that contravenes the convention. Specific legislation must be adopted by each party to prevent any natural or legal person from undertaking activities prohibited by the CWC on its territory.

In addition to their significance for verification and reporting routines, the three schedules of the CWC also form the basis of an export control regime among states parties and between parties and non-parties. The overriding criterion is that none of the transactions may contravene the basic purpose of the CWC. The CWC thus makes a sharp distinction between parties and other countries regarding trade relations. Parties are granted overall rights for permitted chemical activities and international cooperation among themselves. By implication, other countries cannot fully enjoy such rights.

The CWC is the most elaborate disarmament treaty ever negotiated. This is reflected in the need to establish a special international body to oversee its implementation. Although several arms limitation and disarmament agreements have entrusted international organs or organizations with implementation functions, the size and scope of responsibilities of the OPCW are unprecedented. A party automatically becomes a member of the OPCW. Membership cannot be withdrawn although specific rights or privileges can be lost if a party's behaviour is not in line with the requirements of the convention.

Following the opening for signature of the CWC in 1993 the Preparatory Commission (PrepCom) for the OPCW was established. It laid the foundations of the OPCW by setting up the necessary infrastructure and developing the

necessary procedures for the implementation of the CWC. The OPCW consists of three organs; the Conference of States Parties, the Executive Council and the Technical Secretariat. It is complemented by a National Authority in each of the states parties.

The highest decision-making body is the Conference of States Parties, in which all parties have one representative and one vote. This reflects the underlying principle in the CWC that all parties are treated in an equal and non-discriminatory manner. The treaty is so far the only global arms control agreement to do this. The body's main responsibilities are to oversee implementation of and compliance with the CWC. It meets in annual sessions to adopt the programme of work and approve the OPCW budget; five sessions have taken place since entry into force. Special sessions may be convened if the need arises. In order to evaluate the overall operation of the CWC and in particular the process of destruction of CW and related facilities, special review conferences will take place 5 and 10 years after entry into force of the CWC.

The Executive Council is a representative organ, consisting of 41 members representing the five regional groups (Africa, Asia, Eastern Europe, Latin America and the Caribbean, and Western European and other states). It meets in regular sessions and in between sessions as often as may be required. Its main responsibility is to oversee and direct the implementation of the CWC. The Executive Council also considers the draft programme and budget of the OPCW to be submitted to the Conference of States Parties. Special responsibilities relate to concerns of non-compliance. Although subordinated to the Conference of States Parties, the Executive Council is highly influential because of its permanent nature.

The Technical Secretariat, headed by the Director-General, is responsible for the practical work of the OPCW. Its main task is to organize and coordinate the complex verification activities. These activities are performed by the Inspectorate, the main component of the Technical Secretariat, and its team of international inspectors.

The National Authority is a body established by each state party to serve as liaison between the party's government and the OPCW and the National Authorities of other states parties. The principal task of the National Authority is to collect all relevant information from civilian and military facilities whose activities fall within the scope of the CWC and report the technical and other verification-related data to the Technical Secretariat. The National Authority also acts as the point of contact and the host for the international inspection teams entering the country.

The CWC is one of the most complex disarmament undertakings so far. It completely delegitimizes chemical warfare and links this ban to an obligation of verified destruction of CW. Monitoring and verification are two key components of the convention, and they are designed to generate high levels of trust in the disarmament regime and among parties. Implementation difficulties are resolved by the parties. The principal element remains coopera-

tion rather than confrontation so that states parties can be assisted to meet their obligations.

### III. The Biological and Toxin Weapons Convention

The BTCW was opened for signature on 10 April 1972 and entered into force on 26 March 1975. Negotiations on the prohibition of CBW began in 1968 within the framework of the Eighteen-Nation Committee on Disarmament (renamed the Conference of the Committee on Disarmament in 1969). An agreement on CBW almost immediately proved difficult to achieve. Instead, a two-step approach was chosen by which the issue of biological disarmament was addressed first. Several countries felt that a separate agreement was easier to achieve because of the widespread belief at the time that biological weapons (BW) had limited military utility. As of 1 January 2001, 144 states had become party to the convention and an additional 18 had signed it.

The BTWC was the first disarmament treaty in the true sense of the word. It bans the development, production and stockpiling of an entire class of weapons and orders the destruction of existing stocks. In addition, at the fourth Review Conference, in 1996, states parties to the BTWC expressly declared BW use in war unlawful under all circumstances (thus reinforcing the prohibition of the 1925 Geneva Protocol in this respect). The prohibition of BW employment is absolute.

In the cold war context, with the negotiating countries divided in the Western, Socialist, and Neutral and Non-Aligned blocs, the treaty-making process was complicated. One consequence is the lack of verification measures in the BTWC. Violations or allegations of BW use have proved difficult to follow up and they have placed a great strain on the convention. The absence of verification measures was highlighted in 1979 by the outbreak of anthrax near Sverdlovsk (now Yekaterinburg), which the West persistently attributed to a prohibited Soviet military programme. In 1993 Russian President Boris Yeltsin all but acknowledged that the former Soviet Union, in spite of the fact that it was a co-depositary of the convention, had continued an offensive BW programme. Serious concern continues to exist about Russia's compliance with the BTWC. Trilateral verification and transparency exercises by the three co-depositaries of the BTWC (Russia, the UK and the USA) have come to a halt, feeding suspicions of Russian non-compliance.

Following the 1991 Persian Gulf War, UNSCOM uncovered an extensive Iraqi offensive BW programme, although Iraq was a signatory to the BTWC. These findings proved the reality of BW proliferation. Growing awareness of the dangers of BW proliferation has led to the multilateral coordination of national export controls on BW materials and related dual-use equipment. The March 1995 nerve agent attacks in the Tokyo underground and the subsequent realization that the religious sect responsible for them was also seeking to

acquire BW (but was unsuccessful) have heightened awareness of the risks of proliferation to sub-state actors.

Finally, the Chemical Weapons Convention has set high standards of verifiability, transparency and international cooperation and further highlighted the inadequacies of the BTWC regime.

Four BTWC review conferences have considered several confidence-building measures. In September 1994 an Ad Hoc Group of Governmental Experts reported to a Special Conference of States Parties that verification measures were possible. An Ad Hoc Group of states parties is now attempting to establish a supplementary protocol, which should include, among other things, verification measures. It is hoped that the negotiation can be finalized before the next review conference, no later than 2001. The discussions, however, have been complicated by rapid progress in biotechnology and genetic engineering, which offer the distinct possibility that designer agents and antidotes could be developed that would make biological warfare controllable. Moreover, because the civilian industry leads these advances, many companies and industry organizations resist intrusive inspection mechanisms for fear of losing critical proprietary information.

The negotiators in the Ad Hoc Group have adopted the rolling text principle for their work and much of the language is still bracketed, indicating alternative propositions or lack of consensus on current wording. Implementation of the future BTWC protocol will inevitably require an organizational structure; the draft protocol envisages the creation of an international body: the Organization for the Prohibition of Bacteriological (Biological) and Toxin Weapons (OPBTW). It is modelled on the OPCW and the Comprehensive Nuclear Test-Ban Treaty Organization. The OPBTW would consist of three organs: the Conference of States Parties, the Executive Council and the Technical Secretariat. The nature and extent of such an organization will depend on the ultimate verification regime, which, apart from different kinds of inspection, also consists of the declarations that states parties will be required to submit. The practice of the CWC verification regime and the experience of UNSCOM will undoubtedly have a major impact on the outcome of these discussions.

The draft protocol envisages three broad mechanisms for monitoring compliance: declarations, visits and investigations. The declarations would contain information on past offensive and defensive BW programmes and present activities and installations of relevance to the protocol. Visits would be on-site activities designed to ensure the completeness and correctness of the submitted declarations. They would be intended to generate confidence in the compliance of other states parties. Investigations, by contrast, would address cases of suspected non-compliance. Following the 13th session of the Ad Hoc Group, held in January 1999, visits and investigations were treated separately, which is psychologically important since visits would be non-confrontational and intended to generate transparency and build confidence, whereas investigations would be accusatorial.

Visits, which aim to validate the declarations, remain the most controversial aspect of the draft protocol. Not only are there large differences of opinion between the regional groups in the Ad Hoc Group, but the Western Group, which has the largest share of relevant industries and research institutions, has thus far been unable to present a unified position. The latest draft protocol envisages three types of visit: (a) visits to clarify declarations; (b) mandatory visits, with annual quota ceilings, to randomly selected facilities in order to follow up on declarations; and (c) voluntary visits to assist in compiling individual facility or national declarations, to resolve ambiguities in declarations, to further assistance and cooperation, or to resolve a particular concern.

The draft protocol distinguishes between two types of investigation. Facility investigations can be initiated in the case of suspicions of illicit activities inside an installation. Field investigations can be launched if BW use is suspected.

At the end of 1999 two major issues remained unresolved. As in 1998, no agreement was achieved on whether the Executive Council of the OPBTW would decide on launching an investigation using the 'red light' or the 'green light' procedure. (Under the 'red light' procedure an investigation would proceed unless a majority of the Council members voted against it. Under the 'green light' procedure, initiation of a challenge inspection would require a majority vote.) The opposing views reflect the concern that the procedure may be abused. Second, there is concern that under the currently proposed mechanisms a field investigation might turn into a facility investigation if, during a field investigation, an unnatural outbreak of disease were to occur that could plausibly be linked to a facility (as, for instance, in the case of the accidental release of anthrax from Sverdlovsk in 1979, when more than 60 people downwind from a military installation died). In particular, there is concern that a field investigation might be used to avoid the complex procedures of a facility investigation.

The question of the right to technical cooperation and development as part of arms control or disarmament treaties has been a politically sensitive issue since the 1968 Non-Proliferation Treaty. Article X of the BTWC deals with opportunities for technology transfers and technical cooperation for peaceful purposes among states parties and requests parties to implement the convention in a manner that does not hamper the economic development of other parties. Article VII of the draft protocol attempts to implement the commitment. However, the discussions remain closely tied to the debate on the role of export controls, and of the Australia Group (AG) in particular, under the future BTWC regime. To a certain extent, the experience of implementing the CWC has reinforced the convictions of the opposing sides in the debate: certain developing countries argue that the AG participants have not changed their export control regulations since the entry into force of the CWC, despite a treaty obligation to review them (several AG participants have in fact reviewed their national export control regulations and concluded that they conform to their CWC obligations), while industrialized states note that many

parties have not yet enacted national legislation to implement the CWC, making it impossible to track transactions in accordance with it.

Speedy international agreement on verification and confidence-building measures for the BTWC is imperative before developments in biotechnology turn biological weapons into controllable battlefield weapons. The manner in which the international community meets these challenges in the near future will determine the strength and future of the BW disarmament regime.

#### IV. The elimination of CBW in Iraq

Following the Gulf War, when an international coalition expelled the Iraqi forces from Kuwait, the UN Security Council adopted Resolution 687 on 3 April 1991. The resolution was, in effect, a conditional ceasefire, outlining an extensive plan for the disarmament of Iraq. Part C of the resolution, which covered non-conventional weapons, required Iraq unconditionally to destroy and to undertake never to use, develop, construct or acquire non-conventional weapons or ballistic missiles with a range greater than 150 km. The resolution also dealt with the return of stolen property, accounting for Kuwaiti troops and civilians missing in action, a border settlement, reparations, terrorist acts and the imposition of sanctions against Iraq for non-compliance.

On 19 April 1991 the Security Council set up UNSCOM and charged it with verifying Iraq's compliance with Resolution 687 in respect of its non-conventional weapon programmes. UNSCOM had two basic functions: to inspect and oversee the destruction or elimination of Iraq's CBW and ballistic missile capabilities and their production and storage facilities; and to monitor Iraq over the longer term to ensure continued compliance. The task of inspecting, destroying and removing all of Iraq's nuclear weapon capabilities was assigned to the International Atomic Energy Agency (IAEA). A regime of sanctions was maintained to ensure Iraq's compliance with the provisions of the resolution.

All the UNSCOM activities in Iraq were suspended in 1998, following a year filled with incidents and stand-offs. At that time, after more than seven years of inspections and supervised destruction of large quantities of prohibited weapons, UNSCOM was still not able to certify that it knew the full extent of Iraq's CBW programmes nor that Iraq was fully disarmed of its non-conventional weapons. UNSCOM ceased to exist in 1999. The demise of UNSCOM was a long-drawn-out process involving the systematic obstruction of the UNSCOM inspections by Iraq and highly charged political altercations among the permanent members of the Security Council, which Iraq was able to exploit to its advantage. In an effort to revive the disarmament process, the Security Council adopted Resolution 1284 on 17 December 1999, which among other things replaced UNSCOM with UNMOVIC. The ability of this new organization to carry out its mandate was widely doubted from the beginning. UNMOVIC did not enjoy the full support of the Security Council

as several members—China, France, Malaysia and Russia—had abstained from voting on Resolution 1284. Moreover, Iraq declared that it was not prepared to cooperate with UNMOVIC and has continually stated that it will not allow any inspections as long as the sanctions against it are maintained. After several months of organizational build-up UNMOVIC announced in August 2000 that it was ready to begin work in Iraq. At the time of writing there is no indication that Iraq will agree to inspections, and the Security Council appears reluctant to step up pressure on Iraq to cooperate with UNMOVIC. Should Iraq decide to cooperate, there are still serious questions as to whether UNMOVIC will be able to complete UNSCOM's tasks. Iraq has not been inspected or monitored since December 1998. UNMOVIC will have to redo all of UNSCOM's work, as Iraq is known to have moved material, equipment and files. This will include the highly confrontational no-notice inspections of sensitive sites. Since 1991 Iraq has perfected its concealment operations.

It has been known since the 1980–88 war with Iran that Iraq was producing large quantities of CW, including mustard agent, tabun and sarin. However, so far no full accounting of the CW programme has been possible. First, Iraq had removed CW, equipment and materials from the main site of the al-Muthanna State Establishment before the first UNSCOM inspection team arrived in Iraq, and a full accounting of these materials has not been forthcoming. Second, Iraq claims that it has destroyed considerable amounts of chemical munitions, agents and precursors unilaterally, a claim that has remained impossible to fully verify because of the lack of documentation. In 1997 UNSCOM found new evidence that Iraq had developed a production capability for VX, the most toxic nerve agent in military arsenals. Iraq had obtained at least 750 tonnes of VX precursor chemicals, and many more tonnes remain unaccounted for. UNSCOM inspectors were reportedly closing in on this programme when the stand-off between Iraq and the UN Security Council started in the autumn of 1997.

Iraq may have produced up to 10 billion doses of anthrax, botulinum toxin and aflatoxin. Anthrax, a highly infectious bacterium, and botulinum toxin, one of the most toxic known substances, are among the most likely candidates for biological warfare agents. The discovery that Iraq was conducting research on aflatoxin, not a traditional BW agent, was surprising. Because it is a carcinogen, the effects of which would manifest themselves only after many years, several Western experts have speculated that the Iraqi programme was intended for purposes of genocide. If it were used against the Kurds, for example, it would be almost impossible to prove biological warfare at the time the symptoms appeared. The Iraqi research programme also focused on other agents—camel pox, gas gangrene, plague, and so on—and included animal testing and (on the basis of circumstantial evidence collected by UNSCOM) possibly human testing. This is still one major issue that requires clarification. It is possible that Iraq has hidden quantities of freeze-dried organisms from its BW programme and would be able to resurrect its research and production

Table 29.1. Chemical weapons in Iraq, as of January 1999

Iraqi declarations		UNSCOM findings						
A. Type of weapon or equipment	B. Holdings as of Jan. 1991	C. Amount destroyed in 1991 Persian Gulf War	D. Unilateral destruction	E. Amount of C accounted for	F. Amount of D accounted for	G. Destruction under UNSCOM supervision	H. Other	I. Discrepancy
Special munitions <sup>a</sup>	127 941 <sup>b</sup>	41 998	29 662	± 34 000	13 660	40 048	16 263 <sup>c</sup>	± 23 970
<i>Bulk CW agent (tonnes)</i>								
Mustard	295.0	..	..	..	..	295.0	..	..
Tabun	76.0	..	..	..	..	76.0	..	..
Sarin and its mixtures	40.0	..	..	..	..	40.0	..	..
VX	1.5	..	1.5	..	—	..	..	1.5
<b>Total</b>	<b>412.5</b>	<b>..</b>	<b>1.5</b>	<b>..</b>	<b>—</b>	<b>411.0</b>	<b>..</b>	<b>1.5</b>
CW precursor chemicals (tonnes) <sup>d</sup>	3 915 (5 650) <sup>e</sup>	823	242	823 <sup>f</sup>	153 <sup>g</sup>	2 610 <sup>h</sup>	200 + 40 <sup>i</sup>	129–40 <sup>j</sup> (1 864–40) <sup>k</sup>
CW production equipment	553	152 <sup>l</sup>	..	75	..	405 <sup>m</sup>	— <sup>n</sup>	73 <sup>o</sup>

<sup>a</sup> Includes aerial bombs, artillery shells, rockets and missile warheads for both chemical and biological warfare agents.

<sup>b</sup> Including 28 615 munitions filled with chemical or biological warfare agents.

<sup>c</sup> The UNSCOM report states that '16 263 munitions were not destroyed, but nevertheless accounted for by UNSCOM. These include 15 616 unfilled munitions which were converted by Iraq for conventional weapons purposes in 1993–94. These also include 438 filled munitions destroyed, according to Iraq, during a fire accident'. A further 2 munitions were removed for analysis outside Iraq. The report gives no explanation for the remaining 207 munitions. However, it adds that the 'numerical discrepancy of several hundred munitions in the overall accounting can be attributed to minor deviations in physical counting of large piles of weapons'. Letter dated 27 January 1999 from the Permanent Representatives of the Netherlands and Slovenia to the United Nations addressed to the President of the Security Council, UN document S/1999/94, 29 Jan. 1999, appendix 2, 'Status of the verification of Iraq's chemical weapons programme', para. 10 (a) and table 1, col. 3, rows 5, 12.

<sup>d</sup> Comprises unused chemicals for chemical weapon production, which require separate accounting.

<sup>e</sup> Iraq declared that it had produced or procured a total of 20 150 tonnes of precursor chemicals and consumed 14 500 tonnes in the production of chemical warfare agents, leaving 5650 tonnes to be accounted for. UN document S/1999/94, 29 Jan. 1999, appendix 2, para. 18. According to Iraq, this variance with the officially declared amount of 3915 tonnes can be attributed to the lack of sufficient information on the actual deliveries by former



suppliers, the consumption of precursors in the production of chemical warfare agents and losses as a consequence of unsuitable storage, spillage, leakage, and so on. UN document S/1999/94, 29 Jan. 1999, appendix 2, para. 20.

<sup>f</sup> UNSCOM confirmed the destruction qualitatively but was not able to make a quantitative verification. UN document S/1999/94, 29 Jan. 1999, appendix 2, para. 21.

<sup>g</sup> UNSCOM found evidence of destruction of additional amounts of precursor chemicals but was unable to verify the quantities.

<sup>h</sup> 2814 tonnes according to the addition of the figures related to the destruction under UNSCOM supervision in UN document S/1999/94, 29 Jan. 1999, appendix 2, table 3, col. 6.

<sup>i</sup> UNSCOM released 200 tonnes of precursor chemicals for civilian use under its supervision. Furthermore, UNSCOM reports that 'tens of tonnes were consumed by Iraq in the 1990s for civilian purposes under UNSCOM supervision'. UN document S/1999/94, 29 Jan. 1999, appendix 2, table 3, col. 6, row 11. As UNSCOM was able to fully account for 2850 tonnes, of which 2610 tonnes were destroyed and 200 tonnes released under its supervision, this Iraqi consumption of precursors is 40 tonnes. UN document S/1999/94, 29 Jan. 1999, appendix 2, para. 21.

<sup>j</sup> Calculation based on available figures as exact quantitative accounting of the precursor chemicals destroyed during the Persian Gulf War and unilaterally by Iraq is impossible. The origin of the amount of 40 tonnes is explained in note *i*.

<sup>k</sup> Calculation based on amounts accounted for by UNSCOM. The origin of the amount of 40 tonnes is explained in note *i*.

<sup>l</sup> Calculation based on Iraq's total declarations minus pieces of equipment destroyed under UNSCOM supervision. UN document S/1999/94, 29 Jan. 1999, appendix 2, table 4, cols 2, 3.

<sup>m</sup> According to the other calculations (see *SIPRI Yearbook 2000*, appendix 9B) the figure should be 401. UN document S/1999/94, 29 Jan. 1999, appendix 2, table 4, col. 3.

<sup>n</sup> Several tens of pieces of equipment were buried under the debris of production buildings destroyed in the Gulf War.

<sup>o</sup> The discrepancy may be explained in part or whole by the destruction of the equipment during the Gulf War. The amount would be 76 if based on the figure in note *m*.

*Source:* Letter dated 27 January 1999 from the Permanent Representatives of the Netherlands and Slovenia to the United Nations addressed to the President of the Security Council, UN document S/1999/94, 29 Jan. 1999.

**Table 29.2.** Biological weapons in Iraq, as of January 1999

Iraqi declarations		UNSCOM findings <sup>a</sup>	
Type of weapon or equipment	Amount declared in 'full, final and complete disclosures' (FFCDs)	Material balances	Assessment of Iraqi declarations
Al-Hussein missile warheads (BW)	25	All destroyed unilaterally	Not supported by conclusive evidence
<i>Warhead fillings</i> <sup>b</sup>			Analysis of samples from excavated remnants of warhead containers does not support FFCDs; locations of remnants are inconsistent with FFCDs; consequently, there are major doubts about the accounts of weapon fillings, deployment and subsequent destruction
Botulinum toxin	16	..	R-400 declaration changed several times; account in the 1997 FFCD was incomplete and inaccurate according to review by international experts
Anthrax spores	5	..	Only partial verification of destruction of bombs
Aflatoxin	4	..	
R-400 aerial bombs (BW)	200	157 filled and 43 unfilled bombs destroyed unilaterally	
<i>Bomb fillings</i>			
Botulinum toxin	100	..	
Anthrax spores	50	..	
Aflatoxin	7	..	
Aircraft drop tanks <sup>c</sup>	4	1 destroyed in the 1991 air campaign; 3 destroyed unilaterally by Iraq	No validation of data in Iraq's declarations; 12 more drop tanks may have been modified for BW use; there was verification of destruction of 3 drop tanks by Iraq but no physical evidence to support Iraq's claim that 1 drop tank was destroyed in the war

Aerosol generators	June 1996 FFCD includes description of devices but does not state number produced; production of 12 aerosol generators acknowledged in interviews with Iraqi personnel 47	No Iraqi declaration about disposal	Aerosol generators have not been accounted for
Mobile storage tanks for agents		Unknown number destroyed, but not specified whether unilaterally or in Persian Gulf War <sup>d</sup>	Remnants of c. 22 destroyed tanks turned over to UNSCOM; remnants of 2 more tanks found; rest unaccounted for
Bulk botulinum toxin <sup>e</sup>	19 180 l.	10 820 l. filled in missile warheads and bombs; 499–569 l. used in field trials; 118 l. wasted in handling; 7665–7735 l. destroyed unilaterally	Iraq's statements unsupported; unable to verify amount of botulinum toxin produced; unable to verify Iraq's material balance
Bulk anthrax spores	8 445 l./	4975 l. filled in missile warheads and bombs; 52.2 l. wasted in handling; 3412 l. destroyed unilaterally	Statements in 1997 FFCDs unsupported; unable to verify amount of anthrax produced; unable to verify Iraq's material balance
Bulk aflatoxin	2 200 l.	1120 l. filled in missile warheads and bombs; 231–301 l. used in field trials; 30.5 l. wasted in handling; 900–970 l. destroyed unilaterally	Statements in 1997 FFCDs unsupported; unable to verify amount of aflatoxin produced; unable to verify Iraq's material balance
Bulk <i>Clostridium perfringens</i>	340 l.	338 l. unilaterally destroyed	Neither figure verified
Bulk ricin	10 l. (produced from 100 kg castor beans)	All used in field trials	Neither figure verified
Bulk wheat cover smut	Not quantifiable	All unilaterally destroyed	Neither declaration verified
<i>Growth media</i>	..	..	Generally unable to verify the figures <sup>g</sup>
Casein	17 554 kg	7074 kg used in botulinum toxin production; 145 kg lost or wasted; 10 335 kg destroyed under UNSCOM supervision	Minimum of 460 kg unaccounted for based on UNSCOM importation data
Thioglycollate broth	6 036 kg	4130 kg used in botulinum toxin production; 58 kg lost or wasted; 1848 kg destroyed under UNSCOM supervision	Minimum of 80 kg unaccounted for based on UNSCOM importation data

Iraqi declarations	UNSCOM findings <sup>a</sup>	
Type of weapon or equipment	Amount declared in 'full, final and complete disclosures' (FFCDs)	Material balances
Yeast extract	7 070 kg	1964 kg used in botulinum toxin, anthrax and <i>Clostridium perfringens</i> production; 15 kg lost or wasted; 4942 kg destroyed under UNSCOM supervision
Peptone	1 500 kg	45 kg used in <i>Clostridium perfringens</i> production; 705 kg lost or wasted; 625 kg destroyed under UNSCOM supervision

<sup>a</sup> All declarations by Iraq in the FFCDs were repeatedly rejected by UNSCOM and panels of international experts in Sep. 1997, Mar. 1998 and July 1998.

<sup>b</sup> UNSCOM found 7 missile warheads with traces of anthrax as opposed to the 5 declared. Confronted with this evidence, Iraqi officials claimed that they had confused the numbers of BW warheads. In July 1998 Iraq stated to an UNSCOM team that, instead of the declared numbers, there had, in fact, been 16 anthrax missile warheads and 5 botulinum toxin missile warheads. Interview with UNSCOM official, Munich, 25 Oct. 1999; and Letter dated 27 January 1999 from the Permanent Representatives of the Netherlands and Slovenia to the United Nations addressed to the President of the Security Council, UN document S/1999/94, 29 Jan. 1999, appendix 3, section 'Al-Hussein missile warheads'.

<sup>c</sup> Iraq was also developing a pilotless aircraft to carry the drop tanks.

<sup>d</sup> The UNSCOM report does not state whether the Iraqi declaration specified how destruction took place—unilaterally or in the Persian Gulf War.

<sup>e</sup> UNSCOM data only give the volume of bulk agents but not the concentration of the agent in the mix; it is therefore impossible to give the approximate weight of the biological warfare agents.

<sup>f</sup> Based on statements by Iraqi officials, UNSCOM inspectors calculated the following conversion equation for the anthrax bombs: 100 l. of filling = 140 kg (density = ± 1.4), containing 1.2% dried anthrax spores. Per 100 l. there would thus be 1.68 kg of agent. Trevan, T., *Sadam's Secrets: The Hunt for Iraq's Hidden Weapons* (Harper Collins: London, 1999), p. 318. On the basis of this equation, Iraq may have produced approximately 141.9 kg of anthrax spores.

<sup>g</sup> Iraq did not report all the growth media that UNSCOM knows it imported. The figures on growth media used in the production of biological warfare agents are derived from estimates of how much agent was produced. According to the Jan. 1999 UNSCOM report, these figures are the result of a theoretical calculation and have little supporting evidence. There are also substantial uncertainties about the amounts declared as lost or wasted.

Source: Letter dated 27 January 1999 from the Permanent Representatives of the Netherlands and Slovenia to the United Nations addressed to the President of the Security Council, UN document S/1999/94, 29 Jan. 1999.

programme quickly. A variety of BW delivery systems were developed—including 155-mm artillery shells, 122-mm rockets, 166 aircraft bombs and 25 warheads for the al-Hussein ballistic missile—for aflatoxin, anthrax and botulinum toxin, the main BW agents discovered by UNSCOM. An experimental spray tank converted from drop tanks was also developed, which would have held 2000 litres of anthrax. The delivery systems may still have been primitive and therefore ineffective, but development was well under way. Tables 29.1 and 29.2 present an overview of Iraq's declarations regarding CBW and of UNSCOM's findings and estimates of weaponry and equipment that still remain unaccounted for.

The experience of UNSCOM is unique in the history of arms control and disarmament. The UN Security Council mandate created the most intrusive verification regime ever: UNSCOM was given extraordinary authority, privileges and access within Iraq. UNSCOM failed in spite of these provisions and this has potential long-term implications. The Security Council proved unable to deal with a blatant and determined violator of its own rules as well as the generally accepted norms against the acquisition, possession or use of chemical, biological and nuclear weapons. For major disarmament treaties, such as the CWC or the BTWC, the Security Council is the ultimate arbiter in the case of material breaches. The experience of UNSCOM raises serious doubts about its ability or willingness to uphold fundamental norms in the name of the international community in the case of a determined and persistent violator. Few cases will be as clear-cut as that of Iraq.

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## 30. Arms control and disarmament agreements

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*Ragnhild Ferm*

### Notes

1. The agreements are listed in the order of the date on which they were opened for signature (multilateral agreements) or signed (bilateral agreements); the date on which they entered into force and the depositary for multilateral treaties are also given. Information is as of *1 January 2000* unless otherwise indicated. Where confirmed information on entry into force or new parties became available in early 2000, this information is given in notes.

2. The main source of information is the lists of signatories and parties provided by the depositaries of the treaties.

3. States listed as parties have ratified, acceded or succeeded to the agreements. Former non-self-governing territories, upon attaining independence, sometimes make general statements of continuity to all agreements concluded by the former colonial power. This annexe lists as parties only those former colonies which have made an uncontested declaration on continuity or have notified the depositary about its succession.

4. For a few major treaties, the substantive parts of the most important reservations, declarations and/or interpretive statements made in connection with a state's signature, ratification, accession or succession are given in footnotes below the list of parties.

5. The Russian Federation, constituted in 1991 as an independent state, has confirmed the continuity of international obligations assumed by the Soviet Union. In order to become signatories/parties, the other former Soviet republics which were constituted in 1991 as independent sovereign states subsequently signed, ratified or acceded to agreements.

6. Czechoslovakia split into two states, the Czech Republic and Slovakia, in 1993. Both states have succeeded to all the agreements listed in this annexe to which Czechoslovakia was a party.

7. The Socialist Federal Republic of Yugoslavia (SFRY) split into several states in 1991–92. 'Yugoslavia' is listed for those agreements which the SFRY had signed or ratified. (The former Yugoslav republics of Bosnia and Herzegovina, Croatia, Macedonia and Slovenia have succeeded, as independent states, to several agreements.)

8. Taiwan, while not recognized as a sovereign state by some nations, is given as a party to those agreements which it has ratified.

9. Unless otherwise stated, the multilateral agreements listed in this annexe are open to all states for signature, ratification, accession or succession.

**Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (Geneva Protocol)**

*Opened for signature at Geneva on 17 June 1925; entered into force on 8 February 1928; depositary French Government*

The protocol declares that the parties agree to be bound by the prohibition on the use in war of these weapons.

**Parties (133):** Afghanistan, Albania, Algeria,<sup>1</sup> Angola,<sup>1</sup> Antigua and Barbuda, Argentina, Australia, Austria, Bahrain,<sup>1</sup> Bangladesh,<sup>1</sup> Barbados, Belarus, Belgium, Benin, Bhutan, Bolivia, Brazil, Bulgaria, Burkina Faso, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chile, China,<sup>1</sup> Côte d'Ivoire, Cuba, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, Equatorial Guinea, Estonia, Ethiopia, Fiji,<sup>1</sup> Finland, France, Gambia, Germany, Ghana, Greece, Grenada, Guatemala, Guinea-Bissau, Holy See, Hungary, Iceland, India,<sup>1</sup> Indonesia, Iran, Iraq,<sup>1</sup> Ireland, Israel,<sup>2</sup> Italy, Jamaica, Japan, Jordan,<sup>3</sup> Kenya, Korea (North),<sup>1</sup> Korea (South),<sup>1</sup> Kuwait,<sup>1</sup> Laos, Latvia, Lebanon, Lesotho, Liberia, Libya,<sup>1</sup> Liechtenstein, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Malta, Mauritius, Mexico, Monaco, Mongolia, Morocco, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria,<sup>1</sup> Norway, Pakistan, Panama, Papua New Guinea,<sup>1</sup> Paraguay, Peru, Philippines, Poland, Portugal,<sup>1</sup> Qatar, Romania, Russia, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Saudi Arabia, Senegal, Sierra Leone, Slovakia, Solomon Islands, South Africa, Spain, Sri Lanka, Sudan, Swaziland, Sweden, Switzerland, Syria, Tanzania, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Uganda, UK,<sup>4</sup> Uruguay, USA,<sup>4</sup> Venezuela, Viet Nam,<sup>1</sup> Yemen, Yugoslavia<sup>1</sup>

<sup>1</sup> The protocol is binding on this state only as regards states which have signed and ratified or acceded to it. The protocol will cease to be binding on this state in regard to any enemy state whose armed forces or whose allies fail to respect the prohibitions laid down in it.

<sup>2</sup> The protocol is binding on Israel only as regards states which have signed and ratified or acceded to it. The protocol shall cease to be binding on Israel in regard to any enemy state whose armed forces, or the armed forces of whose allies, or the regular or irregular forces, or groups or individuals operating from its territory, fail to respect the prohibitions which are the object of the protocol.

<sup>3</sup> Jordan undertakes to respect the obligations contained in the protocol with regard to states which have undertaken similar commitments. It is not bound by the protocol as regards states whose armed forces, regular or irregular, do not respect the provisions of the protocol.

<sup>4</sup> The protocol shall cease to be binding on this state with respect to use in war of asphyxiating, poisonous or other gases, and of all analogous liquids, materials or devices, in regard to any enemy state if such state or any of its allies fails to respect the prohibitions laid down in the protocol.

**Signed but not ratified:** El Salvador

**Treaty for Collaboration in Economic, Social and Cultural Matters and for Collective Self-defence among Western European states (Brussels Treaty)**

*Opened for signature at Brussels on 17 March 1948; entered into force on 25 August 1948; depositary Belgian Government*

The treaty provides for close cooperation of the parties in the military, economic and political fields.

**Parties (7):** *Original parties:* Belgium, France, Luxembourg, Netherlands, UK Germany and Italy acceded through the 1954 Protocols.

See also the Protocols of 1954.

### **Convention on the Prevention and Punishment of the Crime of Genocide (Genocide Convention)**

*Adopted at Paris by the UN General Assembly on 9 December 1948; entered into force on 12 January 1951; depositary UN Secretary-General*

Under the convention any commission of acts intended to destroy, in whole or in part, a national, ethnic, racial or religious group as such is declared to be a crime punishable under international law.

**Parties (130):** Afghanistan, Albania,\* Algeria,\* Antigua and Barbuda, Argentina,\* Armenia, Australia, Austria, Azerbaijan, Bahamas, Bahrain,\* Bangladesh,\* Barbados, Belarus,\* Belgium, Belize, Bosnia and Herzegovina, Brazil, Bulgaria,\* Burkina Faso, Burundi, Cambodia, Canada, Chile, China,\* Colombia, Congo (Democratic Republic of), Costa Rica, Côte d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Ecuador, Egypt, El Salvador, Estonia, Ethiopia, Fiji, Finland,\* France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Haiti, Honduras, Hungary,\* Iceland, India,\* Iran, Iraq, Ireland, Israel, Italy, Jamaica, Jordan, Kazakhstan, Korea (North), Korea (South), Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia (Former Yugoslav Republic of), Malaysia,\* Maldives, Mali, Mexico, Moldova, Monaco, Mongolia,\* Morocco,\* Mozambique, Myanmar (Burma),\* Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, Panama, Papua New Guinea, Peru, Philippines,\* Poland,\* Portugal,\* Romania,\* Russia,\* Rwanda,\* Saint Vincent and the Grenadines, Saudi Arabia, Senegal, Seychelles, Singapore,\* Slovakia, Slovenia, South Africa, Spain,\* Sri Lanka, Sweden, Syria, Tanzania, Togo, Tonga, Tunisia, Turkey, Uganda, UK, Ukraine,\* Uruguay, USA,\* Venezuela,\* Uzbekistan, Viet Nam,\* Yemen,\* Yugoslavia, Zimbabwe

\*With reservation and/or declaration.

**Signed but not ratified:** Bolivia, Dominican Republic, Paraguay

### **Geneva Convention IV Relative to the Protection of Civilian Persons in Time of War**

*Opened for signature at Geneva on 12 August 1949; entered into force on 21 October 1950; depositary Swiss Federal Council*

The convention establishes rules for the protection of civilians in areas covered by war and on occupied territories.

**Parties (188):** Afghanistan, Albania,\* Algeria, Andorra, Angola,\* Antigua and Barbuda, Argentina, Armenia, Australia,\* Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados,\* Belarus,\* Belgium, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria,\* Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chad, Chile, China,\* Colombia, Comoros, Congo (Democratic Republic of), Congo (Republic of), Costa Rica, Côte d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic,\* Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Estonia, Ethiopia, Fiji, Finland, France, Gabon, Gambia, Georgia, Germany,\* Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau,\* Guyana, Haiti, Holy See, Honduras, Hungary,\* Iceland, India, Indonesia, Iran,\* Iraq, Ireland, Israel,\* Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Korea (North),\* Korea (South),\* Kuwait,\* Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia (Former Yugoslav Republic of),\* Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Micronesia, Moldova,



Monaco, Mongolia, Morocco, Mozambique, Myanmar (Burma), Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan,\* Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland,\* Portugal,\* Qatar, Romania,\* Russia,\* Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa (Western), San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Singapore,\* Slovakia,\* Slovenia, Solomon Islands, Somalia, South Africa, Spain, Sri Lanka, Sudan, Suriname,\* Swaziland, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Tuvalu, Uganda, UK, Ukraine,\* United Arab Emirates, Uruguay,\* USA,\* Uzbekistan, Vanuatu, Venezuela, Viet Nam,\* Yemen,\* Yugoslavia,\* Zambia, Zimbabwe

\* With reservation and/or declaration.

In 1989 the Palestine Liberation Organization (PLO) informed the depositary that it had decided to adhere to the four Geneva Conventions and the two Protocols of 1977.

See also Protocols I and II of 1977.

### **Protocols to the 1948 Brussels Treaty (Paris Agreements on the Western European Union)**

*Opened for signature at Paris on 23 October 1954; entered into force on 6 May 1955; depositary Belgian Government*

The three protocols modify the 1948 Brussels Treaty, allowing the Federal Republic of Germany and Italy to become parties in return for controls over German armaments and force levels (annulled, except for weapons of mass destruction, in 1984). The Protocols to the Brussels Treaty are regarded as having created the Western European Union (WEU).

*Members of the WEU:* Belgium, France, Germany, Greece, Italy, Luxembourg, Netherlands, Portugal, Spain, UK

### **Antarctic Treaty**

*Opened for signature at Washington, DC, on 1 December 1959; entered into force on 23 June 1961; depositary US Government*

Declares the Antarctic an area to be used exclusively for peaceful purposes. Prohibits any measure of a military nature in the Antarctic, such as the establishment of military bases and fortifications, and the carrying out of military manoeuvres or the testing of any type of weapon. The treaty bans any nuclear explosion as well as the disposal of radioactive waste material in Antarctica.

In accordance with Article IX, consultative meetings are convened at regular intervals to exchange information and hold consultations on matters pertaining to Antarctica, as well as to recommend to the governments measures in furtherance of the principles and objectives of the treaty.

The treaty is subject to ratification by the signatories and is open for accession by UN members or by other states invited to accede with the consent of all the parties entitled to participate in the consultative meetings provided for in Article IX.

**Parties (43):** Argentina,† Australia,† Austria, Belgium,† Brazil,† Bulgaria, Canada, Chile,† China,† Colombia, Cuba, Czech Republic, Denmark, Ecuador,† Finland,† France,† Germany,† Greece, Guatemala, Hungary, India,† Italy,† Japan,† Korea (North), Korea (South),† Nether-

lands,† New Zealand,† Norway,† Papua New Guinea, Peru,† Poland,† Romania,\* Russia,† Slovakia, South Africa,† Spain,† Sweden,† Switzerland, Turkey, UK,† Ukraine, Uruguay,\*† USA†  
 † Party entitled to participate in the consultative meetings.

The Protocol on Environmental Protection to the Antarctic Treaty (**Madrid Protocol**) was signed on 4 October 1991 and entered into force on 14 January 1998.

### **Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (Partial Test Ban Treaty, PTBT)**

*Opened for signature at Moscow on 5 August 1963; entered into force on 10 October 1963; depositaries British, US and Russian governments*

The treaty prohibits the carrying out of any nuclear weapon test explosion or any other nuclear explosion: (a) in the atmosphere, beyond its limits, including outer space, or under water, including territorial waters or high seas; and (b) in any other environment if such explosion causes radioactive debris to be present outside the territorial limits of the state under whose jurisdiction or control the explosion is conducted.

**Parties (125):** Afghanistan, Antigua and Barbuda, Argentina, Armenia, Australia, Austria, Bahamas, Bangladesh, Belarus, Belgium, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Canada, Cape Verde, Central African Republic, Chad, Chile, Colombia, Congo (Democratic Republic of), Costa Rica, Côte d'Ivoire, Croatia, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Fiji, Finland, Gabon, Gambia, Germany, Ghana, Greece, Guatemala, Guinea-Bissau, Honduras, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kenya, Korea (South), Kuwait, Laos, Lebanon, Liberia, Libya, Luxembourg, Madagascar, Malawi, Malaysia, Malta, Mauritania, Mauritius, Mexico, Mongolia, Morocco, Myanmar (Burma), Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Pakistan, Panama, Papua New Guinea, Peru, Philippines, Poland, Romania, Russia, Rwanda, Samoa (Western), San Marino, Senegal, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Taiwan, Tanzania, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Uganda, UK, Ukraine, Uruguay, USA, Venezuela, Yemen, Yugoslavia, Zambia

**Signed but not ratified:** Algeria, Burkina Faso, Burundi, Cameroon, Ethiopia, Haiti, Mali, Paraguay, Portugal, Somalia

### **Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Outer Space Treaty)**

*Opened for signature at London, Moscow and Washington, DC, on 27 January 1967; entered into force on 10 October 1967; depositaries British, Russian and US governments*

The treaty prohibits the placing into orbit around the earth of any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, the installation of such weapons on celestial bodies, or the stationing of them in outer space in any other manner. The establishment of military bases, installations and fortifications, the test-

ing of any type of weapons and the conduct of military manoeuvres on celestial bodies are also forbidden.

**Parties (102):** Afghanistan, Algeria, Antigua and Barbuda, Argentina, Australia, Austria, Bahamas, Bangladesh, Barbados, Belarus, Belgium, Benin, Brazil, Brunei, Bulgaria, Burkina Faso, Canada, Chile, China, Cuba, Cyprus, Czech Republic, Denmark, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Fiji, Finland, France, Germany, Greece, Guinea-Bissau, Hungary, Iceland, India, Iraq, Ireland, Israel, Italy, Jamaica, Japan, Kazakhstan, Kenya, Korea (South), Kuwait, Laos, Lebanon, Libya, Madagascar, Mali, Mauritius, Mexico, Mongolia, Morocco, Myanmar (Burma), Nepal, Netherlands, New Zealand, Niger, Nigeria, Norway, Pakistan, Papua New Guinea, Peru, Poland, Portugal, Romania, Russia, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, San Marino, Saudi Arabia, Seychelles, Sierra Leone, Singapore, Slovakia, Solomon Islands, South Africa, Spain, Sri Lanka, Sweden, Swaziland, Switzerland, Syria, Taiwan, Thailand, Togo, Tonga, Tunisia, Turkey, Uganda, UK, Ukraine, Uruguay, USA, Venezuela, Viet Nam, Yemen, Zambia

**Signed but not ratified:** Bolivia, Botswana, Burundi, Cameroon, Central African Republic, Colombia, Congo (Democratic Republic of), Ethiopia, Gambia, Ghana, Guyana, Haiti, Holy See, Honduras, Indonesia, Iran, Jordan, Lesotho, Luxembourg, Malaysia, Nicaragua, Panama, Philippines, Rwanda, Somalia, Trinidad and Tobago, Yugoslavia

### **Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco)**

*Opened for signature at Mexico, Distrito Federal, on 14 February 1967; entered into force on 22 April 1968. The treaty was amended in 1990, 1991 and 1992; depositary Mexican Government*

The treaty prohibits the testing, use, manufacture, production or acquisition by any means, as well as the receipt, storage, installation, deployment and any form of possession of any nuclear weapons by Latin American and Caribbean countries.

The parties should conclude agreements with the IAEA for the application of safeguards to their nuclear activities. The IAEA has the exclusive power to carry out special inspections.

The treaty is open for signature by all the independent states of the region.

Under *Additional Protocol I* states with territories within the zone (France, the Netherlands, the UK and the USA) undertake to apply the statute of military denuclearization to these territories.

Under *Additional Protocol II* the recognized nuclear weapon states (China, France, Russia (at the time of signing, the USSR), the UK and the USA) undertake to respect the statute of military denuclearization of Latin America and not to contribute to acts involving a violation of the treaty, nor to use or threaten to use nuclear weapons against the parties to the treaty.

**Parties to the original treaty (32):** Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela

**Signed but not ratified:** Cuba

**Amendments ratified by:** Argentina, Barbados, Belize, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Jamaica, Mexico, Paraguay, Peru, Suriname, Uruguay, Venezuela

**Parties to Additional Protocol I:** France,<sup>1</sup> Netherlands, UK,<sup>2</sup> USA<sup>3</sup>

**Parties to Additional Protocol II:** China,<sup>4</sup> France,<sup>5</sup> Russia,<sup>6</sup> UK,<sup>2</sup> USA<sup>7</sup>

<sup>1</sup> France declared that Protocol I shall not apply to transit across French territories situated within the zone of the treaty, and destined for other French territories. The protocol shall not limit the participation of the populations of the French territories in the activities mentioned in Article 1 of the treaty, and in efforts connected with the national defence of France. France does not consider the zone described in the treaty as established in accordance with international law; it cannot, therefore, agree that the treaty should apply to that zone.

<sup>2</sup> When signing and ratifying Protocols I and II, the UK made the following declarations of understanding: The signing and ratification by the UK could not be regarded as affecting in any way the legal status of any territory for the international relations of which the UK is responsible, lying within the limits of the geographical zone established by the treaty. Should any party to the treaty carry out any act of aggression with the support of a nuclear weapon state, the UK would be free to reconsider the extent to which it could be regarded as bound by the provisions of Protocol II.

<sup>3</sup> The USA ratified Protocol I with the following understandings: The provisions of the treaty do not affect the exclusive power and legal competence under international law of a state adhering to this Protocol to grant or deny transit and transport privileges to its own or any other vessels or aircraft irrespective of cargo or armaments; the provisions do not affect rights under international law of a state adhering to this protocol regarding the exercise of the freedom of the seas, or regarding passage through or over waters subject to the sovereignty of a state. The declarations attached by the USA to its ratification of Protocol II apply also to Protocol I.

<sup>4</sup> China declared that it will never send its means of transportation and delivery carrying nuclear weapons to cross the territory, territorial sea or airspace of Latin American countries.

<sup>5</sup> France stated that it interprets the undertaking contained in Article 3 of Protocol II to mean that it presents no obstacle to the full exercise of the right of self-defence enshrined in Article 51 of the UN Charter; it takes note of the interpretation by the Preparatory Commission for the Denuclearization of Latin America according to which the treaty does not apply to transit, the granting or denying of which lies within the exclusive competence of each state party in accordance with international law. In 1974, France made a supplementary statement to the effect that it was prepared to consider its obligations under Protocol II as applying not only to the signatories of the treaty, but also to the territories for which the statute of denuclearization was in force in conformity with Protocol I.

<sup>6</sup> On signing an ratifying Protocol II, the USSR stated that it assumed that the effect of Article 1 of the treaty extends to any nuclear explosive device and that, accordingly, the carrying out by any party of nuclear explosions for peaceful purposes would be a violation of its obligations under Article 1 and would be incompatible with its non-nuclear weapon status. For states parties to the treaty, a solution to the problem of peaceful nuclear explosions can be found in accordance with the provisions of Article V of the NPT and within the framework of the international procedures of the IAEA. It declared that authorizing the transit of nuclear weapons in any form would be contrary to the objectives of the treaty. Any actions undertaken by a state or states parties to the treaty which are not compatible with their non-nuclear weapon status, and also the commission by one or more states parties to the treaty of an act of aggression with the support of a state which is in possession of nuclear weapons or together with such a state, will be regarded by the USSR as incompatible with the obligations of those countries under the treaty. In such cases it would reserve the right to reconsider its obligations under Protocol II. It further reserves the right to reconsider its attitude to this protocol in the event of any actions on the part of other states possessing nuclear weapons which are incompatible with their obligations under the said protocol.

<sup>7</sup> The USA signed and ratified Protocol II with the following declarations and understandings: Each of the parties retains exclusive power and legal competence, to grant or deny non-parties transit and transport privileges. As regards the undertaking not to use or threaten to use nuclear weapons against the parties, the USA would consider that an armed attack by a party, in which it was assisted by a nuclear weapon state, would be incompatible with the treaty.

## Treaty on the Non-proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT)

*Opened for signature at London, Moscow and Washington, DC, on 1 July 1968; entered into force on 5 March 1970; depositaries British, Russian and US governments*

The treaty prohibits the transfer by nuclear weapon states (defined in the treaty as those which have manufactured and exploded a nuclear weapon or other nuclear explosive device prior to 1 January 1967) to any recipient whatsoever, of nuclear weapons or other nuclear explosive devices or of control over them, as well as the assistance, encouragement or inducement of any non-nuclear weapon state to manufacture or otherwise acquire such weapons or devices. It also prohibits the receipt by non-nuclear weapon states from any transferor whatsoever, as well as the manufacture or other acquisition by those states, of nuclear weapons or other nuclear explosive devices.

The parties undertake to facilitate the exchange of equipment, materials and scientific and technological information for the peaceful uses of nuclear energy and to ensure that potential benefits from peaceful applications of nuclear explosions will be made available to non-nuclear weapon parties to the treaty. They also undertake to pursue negotiations in good faith on effective measures relating to cessation of the nuclear arms race at an early date and to nuclear disarmament, and on a treaty on general and complete disarmament.

Non-nuclear weapon states undertake to conclude safeguard agreements with the International Atomic Energy Agency (IAEA) with a view to preventing diversion of nuclear energy from peaceful uses to nuclear weapons or other nuclear explosive devices. A Model Protocol, additional to the agreements and strengthening the measures, was approved in 1997; Additional Safeguards Protocols are signed by states individually with the IAEA.

A Review and Extension Conference, convened in 1995 in accordance with the treaty, decided that the treaty should remain in force indefinitely.

**Parties (188):** Afghanistan,† Albania, Algeria,† Andorra, Angola, Antigua and Barbuda,† Argentina,† Armenia,† Australia,† Austria,† Azerbaijan,† Bahamas,† Bahrain, Bangladesh,† Barbados,† Belarus,† Belgium,† Belize,† Benin, Bhutan,† Bolivia,† Bosnia and Herzegovina,† Botswana, Brazil, † Brunei,† Bulgaria,† Burkina Faso, Burundi, Cambodia, Cameroon, Canada,† Cape Verde, Central African Republic, Chad, Chile,† China,† Colombia, † Comoros, Congo (Democratic Republic of),† Congo (Republic of), Costa Rica,† Côte d'Ivoire,† Croatia,† Cyprus,† Czech Republic,† Denmark,† Djibouti, Dominica,† Dominican Republic,† Ecuador,† Egypt,† El Salvador,† Equatorial Guinea, Eritrea, Estonia,† Ethiopia,† Fiji,† Finland,† France,† Gabon, Gambia,† Georgia, Germany,† Ghana,† Greece,† Grenada,† Guatemala,† Guinea, Guinea-Bissau, Guyana,† Haiti, Holy See,† Honduras,† Hungary,† Iceland,† Indonesia,† Iran,† Iraq,† Ireland,† Italy,† Jamaica,† Japan,† Jordan,† Kazakhstan,† Kenya, Kiribati,† Korea (North),† Korea (South),† Kuwait, Kyrgyzstan, Laos, Latvia,† Lebanon,† Lesotho,† Liberia, Libya,† Liechtenstein,† Lithuania,† Luxembourg,† Macedonia (Former Yugoslav Republic of), Madagascar,† Malawi,† Malaysia,† Maldives,† Mali, Malta,† Marshall Islands, Mauritania, Mauritius,† Mexico,† Micronesia, Moldova, Monaco,† Mongolia,† Morocco,† Mozambique, Myanmar (Burma),† Namibia,† Nauru,† Nepal,† Netherlands,† New Zealand,† Nicaragua,† Niger, Nigeria,† Norway,† Oman, Palau, Panama, † Papua New Guinea,† Paraguay,† Peru,† Philippines,† Poland,† Portugal,† Qatar, Romania,† Russia,† Rwanda, Saint Kitts and Nevis,†

Saint Lucia,<sup>†</sup> Saint Vincent and the Grenadines,<sup>†</sup> Samoa (Western),<sup>†</sup> San Marino,<sup>†</sup> Sao Tome and Principe, Saudi Arabia, Senegal,<sup>†</sup> Seychelles, Sierra Leone, Singapore,<sup>†</sup> Slovakia,<sup>†</sup> Slovenia,<sup>†</sup> Solomon Islands,<sup>†</sup> Somalia, South Africa,<sup>†</sup> Spain,<sup>†</sup> Sri Lanka,<sup>†</sup> Sudan,<sup>†</sup> Suriname,<sup>†</sup> Swaziland,<sup>†</sup> Sweden,<sup>†</sup> Switzerland,<sup>†</sup> Syria,<sup>†</sup> Taiwan, Tajikistan, Tanzania, Thailand,<sup>†</sup> Togo, Tonga,<sup>†</sup> Trinidad and Tobago,<sup>†</sup> Tunisia,<sup>†</sup> Turkey,<sup>†</sup> Turkmenistan, Tuvalu,<sup>†</sup> Uganda, UK,<sup>†</sup> Ukraine,<sup>†</sup> United Arab Emirates, Uruguay,<sup>†</sup> USA,<sup>†</sup> Uzbekistan, <sup>†</sup> Vanuatu, Venezuela,<sup>†</sup> Viet Nam,<sup>†</sup> Yemen, Yugoslavia,<sup>†</sup> Zambia,<sup>†</sup> Zimbabwe<sup>†</sup>

<sup>†</sup> Party with safeguards agreements in force with the International Atomic Energy Agency (IAEA), as required by the treaty, or concluded by a nuclear weapon state on a voluntary basis.

Additional Safeguards Protocols are in force for 8 states (Australia, the Holy See, Indonesia, Japan, Jordan, Monaco, New Zealand and Uzbekistan); 37 states have signed but not ratified Additional Protocols. Taiwan, although not an IAEA member, has agreed to the application of the measures contained in the protocols.

### **Treaty on the Prohibition of the Emplacement of Nuclear Weapons and other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil thereof (Seabed Treaty)**

*Opened for signature at London, Moscow and Washington, DC, on 11 February 1971; entered into force on 18 May 1972; depositaries British, Russian and US governments*

The treaty prohibits implanting or emplacing on the seabed and the ocean floor and in the subsoil thereof beyond the outer limit of a 12-mile seabed zone any nuclear weapons or any other types of weapons of mass destruction as well as structures, launching installations or any other facilities specifically designed for storing, testing or using such weapons.

**Parties (95):** Afghanistan, Algeria, Antigua and Barbuda, Argentina,<sup>1</sup> Australia, Austria, Bahamas, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brazil,<sup>2</sup> Bulgaria, Canada,<sup>3</sup> Cape Verde, Central African Republic, China, Congo (Republic of), Côte d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Dominican Republic, Equatorial Guinea, Ethiopia, Finland, Germany, Ghana, Greece, Guatemala, Guinea-Bissau, Hungary, Iceland, India,<sup>4</sup> Iran, Iraq, Ireland, Italy,<sup>5</sup> Jamaica, Japan, Jordan, Korea (South), Laos, Latvia, Lesotho, Libya, Liechtenstein, Luxembourg, Malaysia, Malta, Mauritius, Mexico,<sup>6</sup> Mongolia, Morocco, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Norway, Panama, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Saint Vincent and the Grenadines, Sao Tome and Principe, Saudi Arabia, Seychelles, Singapore, Slovakia, Slovenia, Solomon Islands, South Africa, Spain, Swaziland, Sweden, Switzerland, Taiwan, Togo, Tunisia, Turkey,<sup>7</sup> UK, Ukraine, USA, Viet Nam,<sup>8</sup> Yemen, Yugoslavia,<sup>9</sup> Zambia

**Signed but not ratified:** Bolivia, Burundi, Cambodia, Cameroon, Colombia, Costa Rica, Gambia, Guinea, Honduras, Lebanon, Liberia, Madagascar, Mali, Myanmar (Burma), Paraguay, Senegal, Sierra Leone, Sudan, Tanzania, Uruguay

<sup>1</sup> Argentina precludes any possibility of strengthening, through this treaty, certain positions concerning continental shelves to the detriment of others based on different criteria.

<sup>2</sup> Brazil stated that nothing in the treaty shall be interpreted as prejudicing in any way the sovereign rights of Brazil in the area of the sea, the seabed and the subsoil thereof adjacent to its coasts. It is the understanding of Brazil that the word 'observation', as it appears in para. 1 of Article III of the treaty, refers only to observation that is incidental to the normal course of navigation in accordance with international law.

<sup>3</sup> Canada declared that Article I, para. 1, cannot be interpreted as indicating that any state has a right to implant or emplace any weapons not prohibited under Article I, para. 1, on the seabed and ocean floor,

and in the subsoil thereof, beyond the limits of national jurisdiction, or as constituting any limitation on the principle that this area of the seabed and ocean floor and the subsoil thereof shall be reserved for exclusively peaceful purposes. Articles I, II and III cannot be interpreted as indicating that any state but the coastal state has any right to implant or emplace any weapon not prohibited under Article I, para. 1 on the continental shelf, or the subsoil thereof, appertaining to that coastal state, beyond the outer limit of the seabed zone referred to in Article I and defined in Article II. Article III cannot be interpreted as indicating any restrictions or limitation upon the rights of the coastal state, consistent with its exclusive sovereign rights with respect to the continental shelf, to verify, inspect or effect the removal of any weapon, structure, installation, facility or device implanted or emplaced on the continental shelf, or the subsoil thereof, appertaining to that coastal state, beyond the outer limit of the seabed zone referred to in Article I and defined in Article II.

<sup>4</sup> The accession by India is based on its position that it has full and exclusive rights over the continental shelf adjoining its territory and beyond its territorial waters and the subsoil thereof. There cannot, therefore, be any restriction on, or limitation of, the sovereign right of India as a coastal state to verify, inspect, remove or destroy any weapon, device, structure, installation or facility, which might be implanted or emplaced on or beneath its continental shelf by any other country, or to take such other steps as may be considered necessary to safeguard its security.

<sup>5</sup> Italy stated, *inter alia*, that in the case of agreements on further measures in the field of disarmament to prevent an arms race on the seabed and ocean floor and in their subsoil, the question of the delimitation of the area within which these measures would find application shall have to be examined and solved in each instance in accordance with the nature of the measures to be adopted.

<sup>6</sup> Mexico declared that the treaty cannot be interpreted to mean that a state has the right to emplace weapons of mass destruction, or arms or military equipment of any type, on the continental shelf of Mexico. It reserves the right to verify, inspect, remove or destroy any weapon, structure, installation, device or equipment placed on its continental shelf, including nuclear weapons or other weapons of mass destruction.

<sup>7</sup> Turkey declared that the provisions of Article II cannot be used by a state party in support of claims other than those related to disarmament. Hence, Article II cannot be interpreted as establishing a link with the UN Convention on the Law of the Sea. Furthermore, no provision of the Seabed Treaty confers on parties the right to militarize zones which have been demilitarized by other international instruments. Nor can it be interpreted as conferring on either the coastal states or other states the right to emplace nuclear weapons or other weapons of mass destruction on the continental shelf of a demilitarized territory.

<sup>8</sup> Viet Nam stated that no provision of the treaty should be interpreted in a way that would contradict the rights of the coastal states with regard to their continental shelf, including the right to take measures to ensure their security.

<sup>9</sup> In 1974, the Ambassador of Yugoslavia transmitted to the US Secretary of State a note stating that in the view of the Yugoslav Government, Article III, para. 1, of the treaty should be interpreted in such a way that a state exercising its right under this article shall be obliged to notify in advance the coastal state, in so far as its observations are to be carried out 'within the stretch of the sea extending above the continental shelf of the said state'. The USA objected to the Yugoslav reservation, which it considers incompatible with the object and purpose of the treaty.

### **Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (Biological and Toxin Weapons Convention, BTWC)**

*Opened for signature at London, Moscow and Washington, DC, on 10 April 1972; entered into force on 26 March 1975; depositaries British, Russian and US governments*

The convention prohibits the development, production, stockpiling or acquisition by other means or retention of microbial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification of prophylactic, protective or other peaceful purposes, as well as weapons, equipment or means of delivery designed to use such agents or toxins for hostile purposes or in armed conflict. The destruction of the agents, toxins, weapons, equipment and means of delivery in the possession of the parties, or their diversion to peaceful

purposes, should be effected not later than nine months after the entry into force of the convention. According to a mandate from the 1996 BTWC Review Conference, verification and other measures to strengthen the convention are being discussed and considered in an Ad Hoc Group.

**Parties (144):** Afghanistan, Albania, Argentina, Armenia, Australia, Austria, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Cambodia, Canada, Cape Verde, Chile, China, Colombia, Congo (Democratic Republic of), Congo (Republic of), Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Dominica, Dominican Republic, Ecuador, El Salvador, Equatorial Guinea, Estonia, Ethiopia, Fiji, Finland, France, Gambia, Georgia, Germany, Ghana, Greece, Grenada, Guatemala, Guinea-Bissau, Honduras, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Italy, Jamaica, Japan, Jordan, Kenya, Korea (North), Korea (South), Kuwait, Laos, Latvia, Lebanon, Lesotho, Libya, Liechtenstein, Lithuania, Luxembourg, Macedonia (Former Yugoslav Republic of), Malaysia, Maldives, Malta, Mauritius, Mexico, Monaco, Mongolia, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, San Marino, Sao Tome and Principe, Saudi Arabia, Senegal, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, Suriname, Swaziland, Sweden, Switzerland,\* Taiwan, Thailand, Togo, Tonga, Tunisia, Turkey, Turkmenistan, Uganda, UK, Ukraine, Uruguay, USA, Uzbekistan, Vanuatu, Venezuela, Viet Nam, Yemen, Yugoslavia, Zimbabwe

\* With declaration.

**Signed but not ratified:** Burundi, Central African Republic, Côte d'Ivoire, Egypt, Gabon, Guyana, Haiti, Liberia, Madagascar, Malawi, Mali, Morocco, Myanmar (Burma), Nepal, Somalia, Syria, Tanzania, United Arab Emirates

### **Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty)**

*Signed by the USA and the USSR at Moscow on 26 May 1972; entered into force on 3 October 1972*

The parties undertake not to build nationwide defences against ballistic missile attack and limits the development and deployment of permitted strategic missile defences. The treaty prohibits the parties from giving air defence missiles, radars or launchers the technical ability to counter strategic ballistic missiles and from testing them in a strategic ABM mode.

A *Protocol* to the ABM Treaty, introducing further numerical restrictions on permitted ballistic missile defences, was signed in 1974.

In 1997 Belarus, Kazakhstan, Russia and Ukraine signed a **Memorandum of Understanding on Succession (MOUS)** in which they assumed the obligations of the former USSR regarding the treaty. Russia and the USA signed a set of Agreed Statements, including the **Demarcation Agreement**, specifying the demarcation line between strategic missile defences, which are not permitted under the treaty, and non-strategic or theatre missile defences (TMD), which are permitted under the treaty. The MOUS and Agreed Statements were ratified by Russia in April 2000.



### **Treaty on the Limitation of Underground Nuclear Weapon Tests (Threshold Test Ban Treaty, TTBT)**

*Signed by the USA and the USSR at Moscow on 3 July 1974; entered into force on 11 December 1990*

The parties undertake not to carry out any individual underground nuclear weapon test having a yield exceeding 150 kilotons.

### **Treaty on Underground Nuclear Explosions for Peaceful Purposes (Peaceful Nuclear Explosions Treaty, PNET)**

*Signed by the USA and the USSR at Moscow and Washington, DC, on 28 May 1976; entered into force on 11 December 1990*

The parties undertake not to carry out any underground nuclear explosion for peaceful purposes having a yield exceeding 150 kilotons or any group explosion having an aggregate yield exceeding 150 kilotons.

### **Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (Enmod Convention)**

*Opened for signature at Geneva on 18 May 1977; entered into force on 5 October 1978; depositary UN Secretary-General*

The convention prohibits military or any other hostile use of environmental modification techniques having widespread, long-lasting or severe effects as the means of destruction, damage or injury to states party to the convention. The term ‘environmental modification techniques’ refers to any technique for changing—through the deliberate manipulation of natural processes—the dynamics, composition or structure of the earth, including its biota, lithosphere, hydrosphere and atmosphere, or of outer space. The understandings reached during the negotiations, but not written into the convention, define the terms ‘widespread’, ‘long-lasting’ and ‘severe’.

**Parties (66):** Afghanistan, Algeria, Antigua and Barbuda, Argentina, Australia, Austria, Bangladesh, Belarus, Belgium, Benin, Brazil, Bulgaria, Canada, Cape Verde, Chile, Costa Rica, Cuba, Cyprus, Czech Republic, Denmark, Dominica, Egypt, Finland, Germany, Ghana, Greece, Guatemala, Hungary, India, Ireland, Italy, Japan, Korea (North), Korea (South),\* Kuwait, Laos, Malawi, Mauritius, Mongolia, Netherlands,\* New Zealand, Niger, Norway, Pakistan, Papua New Guinea, Poland, Romania, Russia, Saint Lucia, Saint Vincent and the Grenadines, Sao Tome and Principe, Slovakia, Solomon Islands, Spain, Sri Lanka, Sweden, Switzerland, Tajikistan, Tunisia, UK, Ukraine, Uruguay, USA, Uzbekistan, Viet Nam, Yemen

\* With declaration.

**Signed but not ratified:** Bolivia, Congo (Democratic Republic of), Ethiopia, Holy See, Iceland, Iran, Iraq, Lebanon, Liberia, Luxembourg, Morocco, Nicaragua, Portugal, Sierra Leone, Syria, Turkey, Uganda

**Protocol I Additional to the 1949 Geneva Conventions, and Relating to the Protection of Victims of International Armed Conflicts**

**Protocol II Additional to the 1949 Geneva Conventions, and Relating to the Protection of Victims of Non-International Armed Conflicts**

*Opened for signature at Bern on 12 December 1977; entered into force on 7 December 1978; depositary Swiss Federal Council*

The protocols confirm that the right of the parties to international or non-international armed conflicts to choose methods or means of warfare is not unlimited and that it is prohibited to use weapons or means of warfare which cause superfluous injury or unnecessary suffering.

**Parties to Protocol I (155) and Protocol II (148):** Albania, Algeria,\* Angola,<sup>1</sup>\* Antigua and Barbuda, Argentina,\* Armenia, Australia,\* Austria,\* Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium,\* Belize, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada,\* Cape Verde, Central African Republic, Chad, Chile, China,\* Colombia, Comoros, Congo (Democratic Republic of),<sup>1</sup> Congo (Republic of), Costa Rica, Côte d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Denmark,\* Djibouti, Dominica, Dominican Republic, Ecuador, Egypt,\* El Salvador, Equatorial Guinea, Estonia, Ethiopia, Finland,\* France,<sup>2</sup> Gabon, Gambia, Georgia, Germany,\* Ghana, Greece, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Holy See,\* Honduras, Hungary, Iceland,\* Ireland, Italy,\* Jamaica, Jordan, Kazakhstan, Kenya, Korea (North),<sup>1</sup> Korea (South),\* Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein,\* Luxembourg, Macedonia (Former Yugoslav Republic of), Madagascar, Malawi, Maldives, Mali, Malta,\* Mauritania, Mauritius, Mexico,<sup>1</sup> Micronesia, Moldova, Mongolia, Mozambique,<sup>1</sup> Namibia, Netherlands,\* New Zealand,\* Nicaragua, Niger, Nigeria, Norway, Oman,\* Palau, Panama, Paraguay, Peru, Philippines,<sup>2</sup> Poland, Portugal, Qatar,\*<sup>1</sup> Romania, Russia,\* Rwanda, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Samoa (Western), San Marino, Sao Tome and Principe, Saudi Arabia,<sup>1</sup>\* Senegal, Seychelles, Sierra Leone, Slovakia, Slovenia, Solomon Islands, South Africa, Spain,\* Suriname, Swaziland, Sweden,\* Switzerland,\* Syria,\*<sup>1</sup> Tajikistan, Tanzania, Togo, Tunisia, Turkmenistan, Uganda, UK, Ukraine, United Arab Emirates,\* Uruguay, Uzbekistan, Vanuatu, Venezuela, Viet Nam,<sup>1</sup> Yemen, Yugoslavia,\* Zambia, Zimbabwe

*Note:* Monaco acceded to the protocols on 7 January 2000.

In 1989 the Palestine Liberation Organization (PLO) informed the depositary that it had decided to adhere to the four Geneva Conventions and the two Protocols.

\* With reservation and/or declaration

<sup>1</sup> Party only to Protocol I.

<sup>2</sup> Party only to Protocol II.

**Convention on the Physical Protection of Nuclear Material**

*Opened for signature at Vienna and New York on 3 March 1980; entered into force on 8 February 1987; depositary IAEA Director General*

The convention obligates the parties to protect nuclear material for peaceful purposes while in international transport.

**Parties (64):** Antigua and Barbuda, Argentina,\* Armenia, Australia, Austria, Belarus, Belgium,† Bosnia and Herzegovina, Brazil, Bulgaria, Canada, Chile, China,\* Croatia, Cuba, Cyprus, Czech Republic, Denmark,† Ecuador, Estonia, Euratom,\*† Finland, France,\*† Germany,† Greece,† Guatemala, Hungary, Indonesia,\* Ireland,† Italy,\*† Japan, Korea (South),\* Lebanon, Liechtenstein, Lithuania, Luxembourg,† Macedonia (Former Yugoslav Republic of), Mexico, Moldova, Monaco, Mongolia,\* Netherlands,\*† Norway, Panama, Paraguay, Peru,\* Philippines, Poland,\* Portugal,† Romania, Russia,\* Slovakia, Slovenia, Spain,\*† Sweden, Switzerland, Tajikistan, Tunisia, Turkey,\* UK,† Ukraine, USA, Uzbekistan, Yugoslavia

\* With reservation and/or declaration.

† Ratified as a Euratom member state.

**Signed but not ratified:** Dominican Republic, Haiti, Israel, Morocco, Niger, South Africa

*Note:* Sudan acceded to the convention on 18 May 2000.

### **Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons which may be Deemed to be Excessively Injurious or to have Indiscriminate Effects (CCW Convention, or ‘Inhumane Weapons’ Convention)**

*The convention, with the original protocols I, II and III, was opened for signature at New York on 10 April 1981; entered into force on 2 December 1983; depositary UN Secretary-General*

The convention is an ‘umbrella treaty’, under which specific agreements can be concluded in the form of protocols. To become a party a state must ratify a minimum of two of the original protocols.

*Protocol I* prohibits the use of weapons intended to injure by fragments which are not detectable in the human body by X-rays.

*Protocol II* prohibits or restricts the use of mines, booby-traps and other devices.

*Amended Protocol II*, reinforcing the constraints regarding landmines, entered into force on 3 December 1998.

*Protocol III* restricts the use of incendiary weapons.

*Protocol IV*, prohibiting the employment of laser weapons specifically designed to cause permanent blindness to unenhanced vision, entered into force on 30 July 1998.

**Parties to the convention and original protocols (75):** Argentina,\* Australia, Austria, Belarus, Belgium, Benin,<sup>1</sup> Bosnia and Herzegovina, Brazil, Bulgaria, Cambodia, Canada, Cape Verde, China, Costa Rica, Croatia, Cuba, Cyprus,\* Czech Republic, Denmark, Djibouti, Ecuador, Finland, France,\*<sup>2</sup> Georgia, Germany, Greece, Guatemala, Holy See, Hungary, India, Ireland, Israel,<sup>2</sup> Italy, Japan, Jordan,<sup>1</sup> Laos, Latvia, Liechtenstein, Lithuania,<sup>1</sup> Luxembourg, Macedonia (Former Yugoslav Republic of), Malta, Mauritius, Mexico, Monaco,<sup>3</sup> Mongolia, Netherlands,\* New Zealand, Niger, Norway, Pakistan, Panama, Peru,<sup>1</sup> Philippines, Poland, Portugal, Romania, Russia, Senegal, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Tajikistan, Togo, Tunisia, Uganda, UK, Ukraine, Uruguay, USA,<sup>2</sup> Uzbekistan, Yugoslavia

\* With reservation and/or declaration.

<sup>1</sup> Party only to Protocols I and III.

<sup>2</sup> Party only to Protocols I and II.

<sup>3</sup> Party only to Protocol I.

**Signed but not ratified the convention and original protocols:** Afghanistan, Egypt, Iceland, Morocco, Nicaragua, Nigeria, Sierra Leone, Sudan, Turkey, Viet Nam

**Parties to the amended Protocol II (47):** Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Cambodia, Canada, Cape Verde, China, Costa Rica, Czech Republic, Denmark, Finland, France, Germany, Greece, Holy See, Hungary, India, Ireland, Italy, Japan, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Pakistan, Panama, Peru, Philippines, Portugal, Senegal, Slovakia, South Africa, Spain, Sweden, Switzerland, UK, Ukraine, Uruguay, USA

**Parties to Protocol IV (45):** Argentina, Australia, Austria, Belgium, Brazil, Bulgaria, Cambodia, Canada, Cape Verde, China, Costa Rica, Czech Republic, Denmark, Finland, France, Germany, Greece, Holy See, Hungary, India, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Panama, Peru, Philippines, Russia, Slovakia, South Africa, Spain, Sweden, Switzerland, Tajikistan, UK, Uruguay, Uzbekistan

### **South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga)**

*Opened for signature at Rarotonga, Cook Islands, on 6 August 1985; entered into force on 11 December 1986; depositary Director of the South Pacific Bureau for Economic Co-operation (from 1988, South Pacific Forum Secretariat)*

The treaty prohibits the manufacture or acquisition by other means of any nuclear explosive device, as well as possession or control over such device by the parties anywhere inside or outside the zone area described in an annex. The parties also undertake not to supply nuclear material or equipment, unless subject to IAEA safeguards, and to prevent in their territories the stationing as well as the testing of any nuclear explosive device and undertake not to dump, and to prevent the dumping of, radioactive wastes and other radioactive matter at sea anywhere within the zone. Each party remains free to allow visits, as well as transit, by foreign ships and aircraft.

The treaty is open for signature by the members of the South Pacific Forum.

Under *Protocol 1* France, the UK and the USA undertake to apply the treaty prohibitions relating to the manufacture, stationing and testing of nuclear explosive devices in the territories situated within the zone, for which they are internationally responsible.

Under *Protocol 2* China, France, Russia, the UK and the USA undertake not to use or threaten to use a nuclear explosive device against the parties to the treaty or against any territory within the zone for which a party to Protocol 1 is internationally responsible.

Under *Protocol 3* China, France, the UK, the USA and Russia undertake not to test any nuclear explosive device anywhere within the zone.

**Parties (12):** Australia, Cook Islands, Fiji, Kiribati, Nauru, New Zealand, Niue, Papua New Guinea, Samoa (Western), Solomon Islands, Tuvalu, Vanuatu

**Signed but not ratified:** Tonga

**Parties to Protocol 1:** France, UK; **signed but not ratified:** USA

**Parties to Protocol 2:** China, France,<sup>1</sup> Russia, UK<sup>2</sup>; **signed but not ratified:** USA

**Parties to Protocol 3:** China, France, Russia, UK; **signed but not ratified:** USA

<sup>1</sup> France declared that the negative security guarantees set out in Protocol 2 are the same as the CD declaration of 6 Apr. 1995 referred to in UN Security Council Resolution 984 of 11 Apr. 1995.

<sup>2</sup> The UK declared that nothing in the treaty affects the rights under international law with regard to transit of the zone or visits to ports and airfields within the zone by ships and aircraft. The UK will not be bound by the undertakings in Protocol 2 in the event of an invasion or any other attack on the UK, its territories, its armed forces or its allies, carried out or sustained by a party to the treaty in association or alliance with a nuclear weapon state, or if a party violates its non-proliferation obligations under the treaty.

### **Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty)**

*Signed by the USA and the USSR at Washington, DC, on 8 December 1987; entered into force on 1 June 1988*

The treaty obligates the parties to destroy all land-based missiles with a range of 500–5500 km (intermediate-range, 1000–5500 km; and shorter-range, 500–1000 km) and their launchers by 1 June 1991. The treaty was implemented by the two parties before this date.

### **Treaty on Conventional Armed Forces in Europe (CFE Treaty)**

*Opened for signature at Vienna on 19 November 1990; entered into force on 9 November 1992; depositary Netherlands Government*

The treaty sets ceilings on five categories of treaty-limited equipment (TLE)—battle tanks, armoured combat vehicles, artillery of at least 100-mm calibre, combat aircraft and attack helicopters—in an area stretching from the Atlantic Ocean to the Ural Mountains (the Atlantic-to-the-Urals, ATTU, zone).

The treaty was negotiated and signed by the member states of the Warsaw Treaty Organization (WTO) and NATO within the framework of the Conference on Security and Co-operation in Europe (from 1995 the Organization for Security and Co-operation in Europe, OSCE).

The **1992 Tashkent Agreement** adopted by the former Soviet republics (except the three Baltic states) with territories within the ATTU zone, and the **1992 Oslo Document** (Final Document of the Extraordinary Conference of the States Parties to the CFE Treaty), introduced modifications to the treaty required because of the emergence of new states after the break-up of the USSR.

**Parties (30):** Armenia, Azerbaijan, Belarus, Belgium, Bulgaria, Canada, Czech Republic, Denmark, France, Georgia, Germany, Greece, Hungary, Iceland, Italy, Kazakhstan, Luxembourg, Moldova, Netherlands, Norway, Poland, Portugal, Romania, Russia, Slovakia, Spain, Turkey, UK, Ukraine, USA

The first Review Conference of the CFE Treaty adopted the **1996 Flank Document**, which reorganized the flank areas geographically and numerically, allowing Russia and Ukraine to deploy more TLE along their borders.

On 19 November 1999 the CFE parties signed the **Agreement on Adaptation of the CFE Treaty**, which replaces the CFE Treaty bloc-to-bloc military balance with individual state limits on TLE holdings and provides for a new structure of limitations and new military flexibility mechanisms, flank sublimits and enhanced transparency; it opens the CFE regime to all the other European states. It will enter into force when it has been ratified by all the signatories. The **Final Act**, with annexes, contains politically binding arrangements with regard to the North

Caucasus, Central and Eastern Europe, and withdrawals of armed forces from foreign territories.

**Agreement on Adaptation:** no ratifications

### **Concluding Act of the Negotiation on Personnel Strength of Conventional Armed Forces in Europe (CFE-1A Agreement)**

*Opened for signature by the parties to the CFE Treaty at Helsinki on 10 July 1992; entered into force simultaneously with the CFE Treaty; depositary Netherlands Government*

The agreement limits the personnel of the conventional land-based armed forces of the parties within the ATTU zone.

### **Vienna Documents 1990, 1992, 1994 and 1999 on Confidence- and Security-Building Measures**

*The Vienna Documents were adopted by the participating states of the Conference on Security and Co-operation in Europe (from 1995 the Organization for Security and Co-operation in Europe). The Vienna Document 1999 was adopted at Istanbul on 16 November 1999.*

**Vienna Document 1990** built on the 1986 Stockholm Document on Confidence- and Security-building Measures (CSBMs) and Disarmament in Europe; subsequent Vienna documents introduced changes and additions to the provisions of the previous one.

The **Vienna Documents 1992 and 1994** introduced new mechanisms and parameters for military activities, defence planning and military contacts. The **Vienna Document 1999** introduces regional measures aimed at increasing transparency and confidence in a bilateral, multilateral and regional context and some improvements, in particular regarding the constraining measures.

### **Treaty on the Reduction and Limitation of Strategic Offensive Arms (START I Treaty)**

*Signed by the USA and the USSR at Moscow on 31 July 1991; entered into force on 5 December 1994*

The treaty requires the USA and Russia to make phased reductions in their offensive strategic nuclear forces over a seven-year period. It sets numerical limits on deployed strategic nuclear delivery vehicles (SNDVs)—ICBMs, SLBMs and heavy bombers—and the nuclear warheads they carry. In the 1992 Protocol to Facilitate the Implementation of the START Treaty (**Lisbon Protocol**), Belarus, Kazakhstan and Ukraine also assumed the obligations of the former USSR under the treaty. They pledged to eliminate all the former Soviet strategic weapons on their territories within the seven-year reduction period and to join the NPT as non-nuclear weapon states in the shortest possible time.

## Treaty on Open Skies

*Opened for signature at Helsinki on 24 March 1992; not in force as of 1 January 2000; depositaries Canadian and Hungarian governments*

The treaty obligates the parties to submit their territories to short-notice unarmed surveillance flights. The area of application stretches from Vancouver, Canada, eastward to Vladivostok, Russia.

The treaty was negotiated between the member states of the Warsaw Treaty Organization (WTO) and NATO. It is open for signature by the NATO states, the new states of the former WTO members, and the new states of the former Soviet Union except the three Baltic states. For six months after entry into force of the treaty, any other OSCE member state may apply for accession. The treaty will enter into force 60 days after the deposit of 20 instruments of ratification, including those of the depositaries (Canada and Hungary), and all the signatories with more than eight 'passive quotas' (i.e., flights which the state is obliged to accept); that is, Belarus, Canada, France, Germany, Italy, Russia, Turkey, the UK, Ukraine and the USA. After the treaty has entered into force, other OSCE states may apply for accession.

**23 ratifications deposited:** Belgium, Bulgaria, Canada, Czech Republic, Denmark, France, Georgia, Germany, Greece, Hungary, Iceland, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Spain, Turkey, UK, USA

**Signed but not ratified:** Belarus, Kyrgyzstan, Russia

*Note:* Ukraine ratified the treaty on 2 March 2000.

## Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II Treaty)

*Signed by the USA and Russia at Moscow on 3 January 1993; not in force as of 1 January 2000*

The treaty requires the USA and Russia to eliminate their MIRVed ICBMs and sharply reduce the number of their deployed strategic nuclear warheads to no more than 3000–3500 each (of which no more than 1750 may be deployed on SLBMs) by 1 January 2003 or no later than 31 December 2000 if the USA and Russia reach a formal agreement committing the USA to help finance the elimination of strategic nuclear weapons in Russia.

On 26 September 1997 the two parties signed a *Protocol* to the treaty providing for the extension until the end of 2007 of the period of implementation of the treaty.

*Note:* The US Senate ratified the treaty on 26 January 1996; the Russian Duma and Federation Council approved ratification on 14 and 19 April 2000, respectively.

### **Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention, CWC)**

*Opened for signature at Paris on 13 January 1993; entered into force on 29 April 1997; depositary UN Secretary-General*

The convention prohibits both the use of chemical weapons (also prohibited by the 1925 Geneva Protocol) and the development, production, acquisition, transfer and stockpiling of chemical weapons. Each party undertakes to destroy its chemical weapons and production facilities within 10 years after the treaty enters into force.

**Parties (129):** Albania, Algeria, Argentina, Armenia, Australia, Austria, Bahrain, Bangladesh, Belarus, Belgium, Benin, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cameroon, Canada, Chile, China, Cook Islands, Costa Rica, Côte d'Ivoire, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Ecuador, El Salvador, Equatorial Guinea, Estonia, Ethiopia, Fiji, Finland, France, Gambia, Georgia, Germany, Ghana, Greece, Guinea, Guyana, Holy See, Hungary, Iceland, India, Indonesia, Iran, Ireland, Italy, Japan, Jordan, Kenya, Korea (South), Kuwait, Laos, Latvia, Lesotho, Liechtenstein, Lithuania, Luxembourg, Macedonia (Former Yugoslav Republic of), Malawi, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Micronesia, Moldova, Monaco, Mongolia, Morocco, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, Norway, Oman, Pakistan, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Saint Lucia, San Marino, Saudi Arabia, Senegal, Seychelles, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Sudan, Suriname, Swaziland, Sweden, Switzerland, Tajikistan, Tanzania, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, UK, Ukraine, Uruguay, USA, Uzbekistan, Venezuela, Viet Nam, Zimbabwe

**Signed but not ratified:** Afghanistan, Azerbaijan, Bahamas, Bhutan, Cambodia, Cape Verde, Central African Republic, Chad, Colombia, Comoros, Congo (Democratic Republic of), Congo (Republic of), Djibouti, Dominica, Dominican Republic, Gabon, Grenada, Guatemala, Guinea-Bissau, Haiti, Honduras, Israel, Jamaica, Kazakhstan, Kyrgyzstan, Liberia, Madagascar, Malaysia, Marshall Islands, Myanmar (Burma), Nauru, Rwanda, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Samoa (Western), Sierra Leone, Thailand, Uganda, United Arab Emirates, Yemen, Zambia

*Note:* Azerbaijan, Colombia, Eritrea, Kazakhstan, Malaysia and the Federal Republic of Yugoslavia ratified or acceded to the convention between 1 January and 1 May 2000.

### **Treaty on the Southeast Asia Nuclear Weapon-Free Zone (Treaty of Bangkok)**

*Opened for signature at Bangkok on 15 December 1995; entered into force on 27 March 1997; depositary Government of Thailand*

The treaty prohibits the development, manufacture, acquisition or testing of nuclear weapons inside or outside the zone area as well as the stationing and transport of nuclear weapons in or through the zone. Each state party may decide for itself whether to allow visits and transit by foreign ships and aircraft. The parties undertake not to dump at sea or discharge into the atmosphere anywhere within the zone any radioactive material or wastes or dispose of radioactive material on land. The parties



should conclude an agreement with the IAEA for the application of full-scope safeguards to their peaceful nuclear activities.

The zone includes not only the territories but also the continental shelves and exclusive economic zones of the states parties.

The treaty is open for signature by all the states in South-East Asia.

Under a *Protocol* to the treaty China, France, Russia, the UK and the USA are to undertake not to use or threaten to use nuclear weapons against any state party to the treaty. They should further undertake not to use nuclear weapons within the Southeast Asia nuclear weapon-free zone. The protocol will enter into force for each state party on the date of its deposit of the instrument of ratification.

**Parties (9):** Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar (Burma), Singapore, Thailand, Viet Nam

**Signed but not ratified:** Philippines

**Protocol:** no parties

### **Agreement on Confidence- and Security-Building Measures in Bosnia and Herzegovina**

*Signed at Vienna on 26 January 1996, entered into force on 26 January 1996*

The agreement is largely based on the Vienna Document 1994 but includes additional restrictions and restraints measures on military movements, deployments and exercises and provides for exchange of information and data relating to major weapon systems.

**Parties (3):** Bosnia and Herzegovina, the Federation of Bosnia and Herzegovina (Bosnian-Croat Federation), the Republika Srpska

### **African Nuclear-Weapon-Free Zone Treaty (Treaty of Pelindaba)**

*Opened for signature at Cairo on 11 April 1996; not in force as of 1 January 2000; depositary Secretary-General of the Organization of African Unity*

The treaty prohibits the research, development, manufacture and acquisition of nuclear explosive devices and the testing or stationing of any nuclear explosive device. Each party remains free to allow visits, as well as transit by foreign ships and aircraft. The treaty also prohibits any attack against nuclear installations. The parties undertake not to dump or permit the dumping of radioactive wastes and other radioactive matter anywhere within the zone. The parties should conclude an agreement with the IAEA for the application of comprehensive safeguards to their peaceful nuclear activities.

The zone includes the territory of the continent of Africa, island states members of the OAU and all islands considered by the OAU to be part of Africa.

The treaty is open for signature by all the states of Africa. It will enter into force upon the 28th ratification.

Under *Protocol I* China, France, Russia, the UK and the USA are to undertake not to use or threaten to use a nuclear explosive device against the parties to the Treaty.

Under *Protocol II* China, France, Russia, the UK and the USA are to undertake not to test nuclear explosive devices anywhere within the zone.

Under *Protocol III* states with territories within the zone for which they are internationally responsible are to undertake to observe certain provisions of the treaty with respect to these territories. This protocol is open for signature by France and Spain.

The protocols will enter into force simultaneously with the treaty for those protocol signatories that have deposited their instruments of ratification.

**11 ratifications deposited:** Algeria, Botswana, Burkina Faso, Côte d'Ivoire, Gambia, Mali, Mauritania, Mauritius, South Africa, Tanzania, Zimbabwe

**Signed but not ratified:** Angola, Benin, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo (Democratic Republic of), Congo (Republic of), Djibouti, Egypt, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Malawi, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Sudan, Swaziland, Togo, Tunisia, Uganda, Zambia

**Protocol I ratification:** China, France<sup>1</sup>; **signed but not ratified:** Russia,<sup>2</sup> UK,<sup>3</sup> USA<sup>4</sup>

**Protocol II ratification:** China, France; **signed but not ratified:** Russia,<sup>2</sup> UK,<sup>3</sup> USA<sup>4</sup>

**Protocol III ratification:** France

<sup>1</sup> France stated that the Protocols did not affect its right to self-defence, as stipulated in Article 51 of the UN Charter. It clarified that its commitment under Article 1 of Protocol I was equivalent to the negative security assurances given by France to non-nuclear weapon states parties to the NPT, as confirmed in its declaration made on 6 Apr. 1995 at the Conference on Disarmament, and as referred to in UN Security Council Resolution 984.

<sup>2</sup> Russia stated that as long as a military base of a nuclear state was located on the islands of the Chagos archipelago these islands could not be regarded as fulfilling the requirements put forward by the Treaty for nuclear-weapon-free territories. Moreover, since certain states declared that they would consider themselves free from the obligations under the Protocols with regard to the mentioned territories, Russia could not consider itself to be bound by the obligations under Protocol I in respect to the same territories. Russia interpreted its obligations under Article 1 of Protocol I as follows: It would not use nuclear weapons against a state party to the Treaty, except in the case of invasion or any other armed attack on Russia, its territory, its armed forces or other troops, its allies or a state towards which it had a security commitment, carried out or sustained by a non-nuclear-weapon state party to the Treaty, in association or alliance with a nuclear-weapon state.

<sup>3</sup> The UK stated that it did not accept the inclusion of the British Indian Ocean Territory within the African nuclear weapon-free zone without its consent, and did not accept, by its adherence to Protocol I and III, any legal obligations in respect of that territory. Moreover, it would not be bound by its undertaking under Article 1 of Protocol I in case of an invasion or any other attack on the United Kingdom, its dependent territories, its armed forces or other troops, its allies or a state towards which it had security commitment, carried out or sustained by a party to the treaty in association or alliance with a nuclear-weapon state, or if any party to the treaty was in material breach of its own non-proliferation obligations under the treaty.

<sup>4</sup> The USA stated, with respect to Protocol I, that it would consider an invasion or any other attack on the USA, its territories, its armed forces or other troops, its allies or on a state toward which it had a security commitment, carried out or sustained by a party to the treaty in association or alliance with a nuclear-weapon state, to be incompatible with the treaty party's corresponding obligations. The USA also stated that neither the treaty nor Protocol III would apply to the activities of the UK, the USA or any other state not party to the treaty on the island of Diego Garcia or elsewhere in the British Indian Ocean Territories. No change was, therefore, required in US armed forces operations in Diego Garcia and elsewhere in these territories.

### **Agreement on Sub-Regional Arms Control (Florence Agreement)**

*Signed at Florence on 14 June 1996; entered into force upon signature*

The agreement was negotiated under the auspices of the OSCE in accordance with the mandate in the 1995 General Framework Agreement for Peace in Bosnia and Herzegovina (Dayton Agreement). It sets numerical ceilings on armaments of the former warring parties: Bosnia and Herzegovina and its two entities, Croatia and the Federal Republic of Yugoslavia. Five categories of heavy conventional weapons are included: battle tanks, armoured combat vehicles, heavy artillery (75 mm and above), combat aircraft and attack helicopters. The reductions were completed by 31 October 1997. It is confirmed that 6580 weapon items were destroyed by that date.

**Parties (5):** Bosnia and Herzegovina, the Federation of Bosnia and Herzegovina (Bosnian–Croat Federation), the Republika Srpska, Croatia, the Federal Republic of Yugoslavia

### **Comprehensive Nuclear Test-Ban Treaty (CTBT)**

*Opened for signature at New York on 24 September 1996; not in force as of 1 January 2000; depositary UN Secretary-General*

The treaty prohibits the carrying out of any nuclear weapon test explosion or any other nuclear explosion, and urges each party to prevent any such nuclear explosion at any place under its jurisdiction or control and refrain from causing, encouraging, or in any way participating in the carrying out of any nuclear weapon test explosion or any other nuclear explosion.

The treaty will enter into force 180 days after the date of the deposit of the instrument of ratification of the 44 states listed in an annexe to the treaty but in no case earlier than two years after its opening for signature. All the 44 states possess nuclear power reactors and/or nuclear research reactors.

The 44 states whose ratification is required for entry into force are Algeria, Argentina, Australia, Austria, Bangladesh, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Congo (Democratic Republic of), Egypt, Finland, France, Germany, Hungary, India, Indonesia, Iran, Israel, Italy, Japan, Korea (North), Korea (South), Mexico, Netherlands, Norway, Pakistan, Peru, Poland, Romania, Russia, Slovakia, South Africa, Spain, Sweden, Switzerland, Turkey, UK, Ukraine, USA and Viet Nam.

**51 ratifications deposited:** Argentina, Australia, Austria, Azerbaijan, Belgium, Bolivia, Brazil, Bulgaria, Canada, Czech Republic, Denmark, El Salvador, Estonia, Fiji, Finland, France, Germany, Greece, Grenada, Hungary, Ireland, Italy, Japan, Jordan, Korea (South), Lesotho, Luxembourg, Mali, Mexico, Micronesia, Monaco, Mongolia, Netherlands, New Zealand, Norway, Panama, Peru, Poland, Qatar, Romania, Senegal, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Tajikistan, Turkmenistan, UK, Uzbekistan

**Signed but not ratified:** Albania, Algeria, Andorra, Angola, Antigua and Barbuda, Armenia, Bahrain, Bangladesh, Belarus, Benin, Bosnia and Herzegovina, Brunei, Burkina Faso, Burundi, Cambodia, Cape Verde, Chad, Chile, China, Colombia, Comoros, Congo (Democratic Republic of), Congo (Republic of), Cook Islands, Costa Rica, Côte d'Ivoire, Croatia, Cyprus, Djibouti, Dominican Republic, Ecuador, Egypt, Equatorial Guinea, Ethiopia, Gabon, Georgia, Ghana, Guatemala, Guinea, Guinea-Bissau, Haiti, Holy See, Honduras, Iceland, Indonesia, Iran, Israel, Jamaica, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Liberia, Liechtenstein, Lithuania, Macedonia (Former Yugoslav Republic of), Madagascar, Malawi, Malaysia, Maldives, Malta, Marshall Islands, Mauritania, Moldova, Morocco, Mozambique, Myanmar (Burma), Namibia, Nepal, Nicaragua, Niger, Oman, Papua New

Guinea, Paraguay, Philippines, Portugal, Russia, Saint Lucia, Samoa (Western), San Marino, Sao Tome and Principe, Seychelles, Singapore, Solomon Islands, Sri Lanka, Suriname, Swaziland, Thailand, Togo, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, Uruguay, USA, Vanuatu, Venezuela, Viet Nam, Yemen, Zambia, Zimbabwe

*Note:* Bangladesh, Lithuania, Macedonia (Former Yugoslav Republic of), Morocco and Turkey ratified the treaty between 1 January and 1 May 2000.

### **Joint Statement on Parameters on Future Reductions in Nuclear Forces**

*Signed by the USA and Russia at Helsinki on 21 March 1997*

In the Joint Statement the two sides agree that once the 1993 START II Treaty enters into force negotiations on a START III treaty will begin. START III will include lower aggregate levels of 2000–2500 nuclear warheads for each side.

### **Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (APM Convention)**

*Opened for signature at Ottawa on 3–4 December 1997 and at the UN Headquarters, New York, on 5 December 1997; entered into force on 1 March 1999; depositary UN Secretary-General*

The convention prohibits anti-personnel mines, which are defined as mines designed to be exploded by the presence, proximity or contact of a person and which will incapacitate, injure or kill one or more persons.

Each party undertakes to destroy all its stockpiled anti-personnel mines as soon as possible but not later than four years after the entry into force of the convention for that state party. Each party also undertakes to destroy all anti-personnel mines in mined areas under its jurisdiction or control not later than 10 years after the entry into force of the convention for that state party.

**Parties (90):** Andorra, Antigua and Barbuda, Argentina, Australia, Austria, Bahamas, Barbados, Belgium, Belize, Benin, Bolivia, Bosnia and Herzegovina, Brazil, Bulgaria, Burkina Faso, Cambodia, Canada, Chad, Costa Rica, Croatia, Czech Republic, Denmark, Djibouti, Dominica, Ecuador, El Salvador, Equatorial Guinea, Fiji, France, Germany, Grenada, Guatemala, Guinea, Holy See, Honduras, Hungary, Iceland, Ireland, Italy, Jamaica, Japan, Jordan, Lesotho, Liberia, Liechtenstein, Luxembourg, Macedonia (Former Yugoslav Republic of), Madagascar, Malawi, Malaysia, Mali, Mauritius, Mexico, Monaco, Mozambique, Namibia, Netherlands, New Zealand, Nicaragua, Niger, Niue, Norway, Panama, Paraguay, Peru, Portugal, Qatar, Saint Kitts and Nevis, Saint Lucia, Samoa (Western), San Marino, Senegal, Slovakia, Slovenia, Solomon Islands, South Africa, Spain, Swaziland, Sweden, Switzerland, Tajikistan, Thailand, Trinidad and Tobago, Tunisia, Turkmenistan, Uganda, UK, Venezuela, Yemen, Zimbabwe

**Signed but not ratified:** Albania, Algeria, Angola, Bangladesh, Botswana, Brunei, Burundi, Cameroon, Cape Verde, Chile, Colombia, Cook Island, Côte d'Ivoire, Cyprus, Dominican Republic, Ethiopia, Gabon, Gambia, Ghana, Greece, Guinea-Bissau, Guyana, Haiti, Indonesia, Kenya, Lithuania, Maldives, Malta, Marshall Islands, Mauritania, Moldova, Philippines, Poland, Romania, Rwanda, Saint Vincent and the Grenadines, Sao Tome and Principe, Seychelles, Sierra Leone, Sudan, Suriname, Tanzania, Togo, Ukraine, Uruguay, Vanuatu, Zambia

*Note:* Albania, Botswana, the Philippines and Togo ratified the convention between 1 January and 1 April 2000.

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## Annexes

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# Annexe A

## Documents of the Nobel Symposium

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### **Programme of the 1999 Nobel Symposium on A Future Arms Control Agenda**

#### **Friday, 1 October**

Introduction by the Chairman of the First Session. *The Security Environment and Arms Control*

Part One. *The New International Security Environment: Main Elements*

Part Two. *Objectives and Limits of Arms Control in the New Security Environment*  
Discussion

Introduction by the Chairman of the Second Session. *Global, Regional and Subregional Dimensions of Arms Control and Disarmament*

Part One. *The Role of the Major Powers in the Arms Control and Disarmament Process*

Part Two. *Arms Control in Transition: In Search of a New Organizing Principle*  
Discussion

#### **Saturday, 2 October**

Introduction by Chairman of the Third Session. *A Comprehensive Approach to Arms Control and Disarmament*

Part One. *Compliance and Non-Compliance with Treaties: Inducements and Coercion in the Arms Control Process*

Part Two. *Arms Control and Peace Settlements and Challenges of Sub-State Activities*  
Discussion

Introduction by Chairman of the Fourth Session. *Transparency, Verification and Safeguards*

Discussion

Panel Discussion. *Demilitarization of International Relations and the Future of Arms Control and Disarmament*

Presentation of the Rapporteur's draft report

Concluding words by the Director of SIPRI

# Summary of the discussions of the Nobel Symposium

## I. Introduction

The general aims of the symposium can be summarized as follows:

- to identify the new normative and structural elements of the post-cold war global security system and to examine the objectives and limits of arms control within that evolving system;
- to assess the changing roles and responsibilities of the major powers in arms control efforts;
- to examine the subregional aspects of arms control, in particular the uses of arms control instruments in conflict resolution and post-conflict settlement efforts;
- to assess the role of transparency and verification measures in arms control arrangements; and
- to discuss approaches to enforcing norms codified in arms control treaties and to responding to activities by treaty parties which are judged to be contrary to those norms.

A wide range of viewpoints were expressed in the discussions that reflected differing and sometimes rival perspectives on the priorities and objectives for a new arms control agenda and the most desirable or practical means of achieving them. The summary presented below indicates the main contours of the discussions and highlights some of the principal issues that emerged from them.

## II. The security environment and arms control

### **New elements in the international system**

The arms control regime of the cold war period was designed first and foremost to mitigate the US–Soviet nuclear competition and to reduce the risks and dangers arising from that competition. According to *Sergey Rogov*, this regime consisted of a hierarchy of strategic stability with three levels:

- the relationship between the USA and the USSR, which was regulated on the principle of equal ceilings;
- the acceptance of China, France and the UK as nuclear weapon states (NWS) so long as their arsenals did not challenge the central US–Soviet nuclear balance; and
- the rest of the world, which was not permitted to have nuclear weapons.

Today, this regime is being challenged at all three levels by developments in the international system. First, the Russian–US strategic relationship is becoming an increasingly asymmetrical one, except as formally codified in arms control agreements. Second, China is becoming an increasingly important military as well as economic power, whose rising strength is matched by a growing assertiveness. Third, additional states have developed nuclear weapon capabilities, and others harbour clear ambitions to do so. As a result of these developments, there is a need to expand



the concept of parity which formed the basis of the cold war-era arms control regime to take into account the legitimate security interests of a host of new players.

### *The European arms control setting*

In Europe, the basic elements of a cooperative security system have been in place for over a decade. These include: limitations on offensive military capabilities, operational confidence-building measures (CBMs), cooperative transparency and verification regimes, and multilateral arrangements for regulating the export of military-related equipment and critical technologies. In addition, new subregional mechanisms are coming into being.

*Alyson Bailes* pointed out that with the breakdown of the East–West divide in Europe the mutual deterrence relationship, which provided such a fertile field for arms control efforts during the cold war, is being replaced by the new dynamics of cooperation and integration. A key development within this broader set of dynamics is the steady enlargement of the network of intrusive arms control arrangements and CBMs which was originally set up to stabilize East–West relations, to integrate the ‘borderlands’ into the Euro-Atlantic ‘core’. This is a positive step for arms control—one that is essential for preventing the renationalization of security policies and the return of a bloc mentality.

While agreeing that these developments mark fundamental and encouraging changes from the past, *Anders Bjurner* cautioned that several qualifications must be added. First, the danger of the use of nuclear weapons remains, which is something that should not be overlooked; recently there has been much talk about nuclear weapons being accorded new roles and missions in Russian and US defence planning. Second, despite progress in creating an unprecedented level of military stability and predictability in interstate relations, states ultimately continue to rely on national armed forces to ensure their security. Finally, the souring of political relations between Russia and the West gives grounds for worrying about the emergence of a new cold war. Such a development would obviously undermine much of the arms control progress made to date.

It was pointed out during the discussions that, outside the Euro-Atlantic community, efforts aimed at laying the normative and structural foundations for a cooperative security system remain largely inchoate. There is a notable lack of well-developed institutional frameworks for formalizing and promoting regional security cooperation. An important first step towards building regional cooperative security regimes would be to further develop the limited multilateral CBMs that have been agreed to date, such as those established under the auspices of the Association of South-East Asian Nations.

### *Changes in military doctrines and force postures*

There was considerable discussion about the direction in which military doctrines and force postures have been evolving. The increased interest within NATO, especially in the USA, in developing power-projection and expeditionary force capabilities based on advanced conventional weapons was seen as having potentially negative implications for arms control. *Alyson Bailes* noted that, along with efforts to strengthen an

autonomous European defence potential, this interest is already leading to mounting pressure for conventional rearmament within Europe.

Some participants expressed concern that the emphasis of Western defence planners, particularly those in the USA, on developing new types of advanced conventional weapons will undermine important non-proliferation objectives. *Randall Forsberg* pointed out that the unrestrained pursuit of such weapons was seen as threatening in many states which do not belong to the 'Western club', as was the growing imbalance in military capabilities that favours Western freedom of action. Together with the growing list of US-led regional military interventions, this perception provided an incentive for states to respond asymmetrically to possible Western military action by developing or otherwise acquiring weapons of mass destruction (WMD). According to *Alyson Bailes*, this situation means that global disarmament efforts aimed at eliminating WMD technologies are becoming harder to achieve just as they are becoming more relevant.

*Sergey Rogov* noted that the USA's development of so-called Revolution in Military Affairs (RMA) technologies had already spurred a renewed doctrinal emphasis on nuclear weapons in Russia. (The RMA involves integrating advanced precision-guided conventional munitions, surveillance and target acquisition capabilities, and digital communications links into new doctrinal and strategic concepts of warfare.) He cited US Secretary of Defense William Cohen as stating that the goal of US defence planning is to 'achieve freedom from being attacked while preserving the freedom to be able to attack'. This was seen as representing an attempt to undo the 'nuclear revolution'; the USA is seeking the capacity to win wars without having to resort to nuclear weapons, which renders irrelevant the entire system of nuclear deterrence that once made war impossible.

*Sergey Rogov* also noted that the RMA makes traditional arms control 'bean counting' approaches less relevant. The development of new long-range, precision-guided munitions also undermines traditional approaches based on buffer zones and force deployment restrictions. He argued that arms control efforts should give greater attention to regulating command, control, communications, computers and intelligence capabilities and to limiting guidance and tracking systems.

Russia recognizes that it cannot currently hope to compete with the USA in developing advanced conventional weapons; hence, Moscow's new draft military doctrine places a greater emphasis on the early first use of nuclear weapons in major conflict scenarios. This development is likely to impede ongoing Russian-US efforts to further cut nuclear arsenals and, in particular, to place legally binding limits on tactical nuclear weapons.

*William Perry* stated that the USA's investment in RMA capabilities is not directed against a particular state or putative enemy. It represents one element in a spectrum of political, economic and military approaches to what he called 'preventive defence'. The ultimate aim of US defence policy is to prevent the emergence of a new 'type A threat', that is, a threat to national survival similar to the one that many nations faced during the world wars of this century.

### *Missile defence*

Questions related to the controversial topic of ballistic missile defence (BMD) arose at several points during the discussions. A number of participants, including

*Hisashi Owada*, argued that the development of defensive capabilities to counter surface-to-surface missiles will contribute to enhancing regional stability by strengthening deterrence. *David Ivry* added that the need to develop such capabilities is especially urgent in the light of the failure of export control measures to curb the proliferation of ballistic missile technology to non-democratic states. However, other panellists were sceptical about both the feasibility and the desirability of developing BMD systems. *Alyson Bailes* said that, since the BMD systems currently under development will not be completely effective, states possessing missiles ultimately will not be deterred from using them; the overall result is that there will be less predictability in interstate relations.

*Vladimir Baranovsky* noted that the current dispute between Moscow and Washington over US proposals to modify the 1972 Anti-Ballistic Missile Treaty (ABM Treaty) to permit the deployment of a limited national missile defence (NMD) system is further straining their already difficult relations and eroding the political climate for arms control cooperation. Not only is the future of bilateral arms control progress threatened, but the achievements of the past are imperilled as well. The dispute over missile defences was described as being symptomatic of the broader negative developments in Russian–US relations. The two countries seem to understand each other less well than they once did; there is no longer a shared set of ‘rules’, and they have different security priorities and threat perceptions.

*Vladimir Baranovsky* and *Sergey Rogov* urged Russia and the USA to engage in a joint effort to overcome the mutual deterrence relationship between the two states. The USA is unilaterally seeking to move away from mutual deterrence, which is undermining existing nuclear arms control treaty regimes. The transition from a relationship based on deterrence to one based on reassurance must be managed in a bilateral, step-by-step manner. One participant suggested that a permanent Russian–US Commission should be established to coordinate Russian and US nuclear force planning with the aim of transforming and minimizing the element of nuclear deterrence in their bilateral relations.

### **The objectives and roles of arms control**

During the course of the discussions, several lists of tasks and objectives for a future arms control agenda were put forward. In proposing a number of specific arms control steps which should be promptly taken, *Anders Bjurner* noted that, while it was generally agreed that curbing the spread of WMD was a desirable aim, it must be kept in mind that the ultimate objective must be the total elimination of such weapons.

With regard to nuclear weapons, *Anders Bjurner* stressed that the clear link contained in the 1968 Non-Proliferation Treaty (NPT) between nuclear non-proliferation and nuclear disarmament should not be overlooked. In this context, the process of reducing the arsenals of the NWS must be made more ‘committing’. Despite the encouraging progress made in the initial post-cold war period, this process has nearly ground to a halt, leaving the NWS—above all, Russia and the USA—continuing to deploy thousands of nuclear warheads. In order to maintain and strengthen the political credibility of the NPT as the legal foundation of the global nuclear non-proliferation regime, the NWS must be seen to be making progress towards fulfilling their disarmament commitment codified in Article VI of the treaty. An immediate step in this direction is for the Russian Duma to ratify the long-stalled 1993 Strategic

Arms Reduction Treaty (START II Treaty); its entry into force is a prerequisite for the negotiation of a follow-on START III treaty mandating even deeper cuts in Russian and US nuclear arsenals and, eventually, for a nuclear arms reduction accord drawing in the other NWS.

With regard to the horizontal proliferation of nuclear weapons, halting the spread of nuclear weapons and knowledge of how to make them—especially to non-democratic states and sub-state actors—was considered by most of the participants to remain a serious challenge. Proliferation risks were seen as varying from region to region. The number of nuclear weapons deployed in Europe is much lower than the number deployed there 10 years ago, and no non-nuclear weapon state is suspected of harbouring nuclear weapon ambitions. By contrast, conditions in Asia were seen by some participants as being ripe for the emergence of additional states possessing nuclear arsenals. The combination of regional rivalries, perceptions of vulnerability and the desire for enhanced international prestige creates especially strong incentives for countries there to acquire nuclear weapons; the decisions by India and Pakistan to openly cross the nuclear threshold in 1998 set a worrying precedent in this regard.

In answering the question ‘what is to be done’ in terms of reducing nuclear risks and dangers, a number of general arms control approaches were proposed by *Vladimir Baranovsky*.

- In the short term, the focus should be on preserving existing nuclear arms control arrangements (the START treaties, the ABM Treaty, unilateral Russian and US initiatives involving tactical nuclear weapons, etc.).

- In the medium term, China must be drawn into the strategic arms limitation process; arrangements must also be found to accommodate India and Pakistan within the NPT regime.

- In the long term, ambitious measures are needed that will lead to the cooperative management of nuclear weapon inventories. This will involve building an unprecedented degree of transparency in nuclear stockpiles; establishing joint arrangements for early warning and missile defence systems, both in Europe and in East Asia; and, ultimately, internationalizing nuclear weapon management and control.

### *Small arms and light weapons*

*Keith Krause* highlighted the roles and objectives of arms control in connection with resolving internal conflicts and civil wars and in building durable peace settlements. One step which is urgently required in this context is to establish legally binding limitations on the availability and use of small arms and light weapons, along with the development of accompanying transparency measures. Such weapons are often a hindrance to conflict prevention and post-conflict settlement efforts. In particular, there is a pressing need for more norm-building work in international forums to ensure that small arms end up only in the hands of legitimate users for legitimate purposes.

### *Export controls*

Another future role for arms control that was mentioned is connected with maintaining and strengthening international efforts to regulate transfers of weapons and militarily relevant technologies. *Vladimir Baranovsky* pointed out that the existing

export control regimes are hampered by the absence of collective decision making and by implementation being left to individual states. To avoid the erosion of these regimes, there must be moves towards greater international regulation, with decisions becoming more binding and more intrusive.

### III. A comprehensive approach to arms control and disarmament

#### **The role of the major powers in the arms control process**

*Catherine Kelleher* and others observed that universalist institutions and organizations have largely failed as instruments of what one panellist called ‘order-building diplomacy’. The performance of the UN Security Council in acting to uphold international agreements and the norms codified therein has been especially disappointing.

According to *James Goodby*, for the foreseeable future the maintenance of security and the current ‘conditional peace’ in the international system is based principally on the interaction of the relations between five major powers: China, the European Union, Japan, Russia and the USA. A policy of equilibrium, in the sense of restraint and accommodation to each power’s special security requirements and concerns, continues to be needed; arms control has an important role to play in maintaining that equilibrium and reducing the risk of war between the major powers.

While acknowledging that there are many complex security issues confronting the major powers, *James Goodby* argued that arms control efforts should focus on reducing nuclear weapon-related dangers, since these continue to pose the greatest peril to the existence of human civilization. Russia and the USA—as the two former cold war adversaries which together account for some 95 per cent of the global inventory of operational nuclear weapons—have a special responsibility for leading efforts to reduce nuclear weapon-related dangers.

Issues on the immediate Russian–US arms control agenda should include not only further negotiated reductions in strategic nuclear forces but also operational measures aimed at reducing the risks of accidental or inadvertent nuclear war. These measures include lowering the alert status of the thousands of nuclear weapons still primed for rapid launch and undertaking cooperative initiatives related to early warning. Efforts to enhance the safety and security of the former Soviet nuclear weapon complex must also be accorded a high priority.

In Asia, the issue of ballistic missile defence has recently moved to the top of the arms control agenda. In the light of recent Japanese–US agreements to cooperate in developing new advanced-capability theatre missile defence (TMD) systems in East Asia, there is a need to establish a multilateral security dialogue in the region involving China, Russia and South Korea as well as the USA and Japan. China is particularly concerned about the political implications of cooperation between Washington and Tokyo in developing theatre missile defences, which it worries might lead to a de facto extension of the Japanese–US defence alliance to include Taiwan.

The dangers posed by sub-state actors, primarily terrorist groups, acquiring nuclear and other WMD also need to be addressed. The major powers should consider how to deal with this common threat through joint measures, possibly including an agree-

ment to retaliate collectively against any actor that uses any weapon of mass destruction.

### **Non-compliance and the enforcement of international arms control treaties**

One of the principal themes that emerged at the symposium was the problem of enforcing compliance with arms control treaties. The discussions made clear that there is a need to think about what measures can be taken to strengthen the enforcement of norms codified in arms control treaties and to consider anew how to deal with actions by treaty parties that are judged to be contrary to these norms.

In the view of *Rolf Ekéus*, this task has become increasingly important because of the recent phenomenon of states joining agreements without intending to honour their commitments and obligations specified therein. This has become particularly salient in the light of the difficulties that the international community has experienced in coping with recent unambiguous challenges (in Iraq, North Korea, South Asia and elsewhere) to the global non-proliferation regime; these challenges are widely perceived as threatening to undermine the regime's credibility and thereby erode a key normative constraint on the acquisition of WMD by additional states.

#### *Responses to non-compliance*

There was general agreement about the need to strengthen enforcement of existing arms control treaties—in particular, those dealing with WMD in which the norm-building work is largely completed. However, there was no clear answer to the vexing question of how to deal with a party judged to be in non-compliance with its treaty commitments.

It was noted that there is little interest within the international community in using military coercion as an instrument to enforce compliance with treaty norms and provisions. The bitter debates in the UN Security Council on authorizing mandates for military action have also highlighted the lack of a general consensus within the international community about the circumstances in which the use of force is legitimate.

Several participants observed that there is growing concern in Europe and elsewhere over the perceived tendency of the USA to resort to unilateral military action in countering suspected cases of WMD proliferation, particularly when they involve so-called 'rogue states' and their alleged terrorist clients. In addition, the USA's advocacy of NATO adopting an active counter-proliferation strategy has aroused misgivings and suspicions among its allies. This has given rise to complaints that the USA is unwilling to engage in the kind of patient diplomacy that is needed to address the incentives for states to acquire WMD capabilities.

However, *David Ivry* and other speakers said that states must be prepared to resort to military force sometimes in order to defend vital interests, especially when confronted by the prospect of non-democratic regimes or terrorist groups in regional trouble spots—such as the Middle East—acquiring WMD. As the only global military power, the USA has an important responsibility in this connection which requires it to act unilaterally at times.

It was pointed out that a number of arms control treaties—for example, the NPT, the 1996 Comprehensive Nuclear Test-Ban Treaty, the 1993 Chemical Weapons Con-

vention, and the 1972 Biological and Toxin Weapons Convention (BTWC)—explicitly require the parties to go to the UN Security Council when they have credible evidence of non-compliance with the provisions of the agreements. The mechanism whereby UN member states bring compliance concerns to the attention of the Security Council can be useful, since it puts public pressure on governments.

However, this mechanism for addressing allegations of non-compliance is hampered by an underlying fundamental problem: the UN Security Council, which is vested with ultimate responsibility for enforcing international law, remains largely paralysed by internal conflicts of interest and seems unlikely ever to become the guardian of peace and security envisioned in the UN Charter. After the war in Kosovo, the political climate for cooperation among the Permanent Five (P5) members of the Security Council was further eroded. One participant claimed that there is little to deter aspiring proliferators from engaging in proscribed activities given the obvious lack of collective political will within the Security Council to respond with vigorous countermeasures. Others argued, however, that the potential role of the Security Council should not be dismissed. The P5 members are responsible states and have a common interest in curbing the proliferation of WMD and in upholding recognized norms.

*Rolf Ekéus* said that the international community has learned that it should keep its response to suspected violations deliberately ambiguous and not specify prescribed steps in advance. *Terence Taylor* suggested that a regional approach involving the states most directly involved, supported by international organizations, is often the most efficacious one in resolving compliance concerns. Such an approach lends itself to many possible arrangements, which will hopefully come about as a result of a cooperative political process. The 1994 North Korea–US Agreed Framework was cited as an example of a creative diplomatic solution within this general approach.

### **Peace settlement and the challenge of sub-state actors**

One of the aims of the meeting was to consider the role that arms control can play in resolving internal conflicts and civil wars and in implementing peace agreements. There was considerable discussion of the arms control ‘lessons learned’ from events in the former Yugoslavia as well as other internal conflicts. It was generally agreed that subregional approaches to settling internal conflicts, such as that contained in the 1996 Florence Agreement, are likely to become regular and increasingly prominent features of arms control undertakings in the future. In the view of *Carlo Jean*, however, the active involvement of strong outside powers will likely be an essential precondition for making such approaches effective.

A key question under discussion was to what extent arms control can contribute to building durable peace settlements. In order to be widely useful, arms control must function not only in post-conflict situations in which relations between former antagonists are improving and becoming more cooperative but also in the many situations characterized by deep-rooted hostility and non-cooperative parties.

The discussions highlighted the difficulties in ‘exporting’ arms control approaches derived from traditional security paradigms to new post-conflict and sub-state contexts. According to *Keith Krause*, arms control faces serious structural challenges in these contexts. These derive from a number of factors: the notion of numerical balances or parity is usually inapplicable in internal conflicts; a ‘winner takes all’ atti-

tude often characterizes the conflicting parties; and the lack of political legitimacy makes the establishment of confidence-and security-building measures difficult. In addition, concepts of negotiation and diplomacy, domestic political norms of conflict resolution and mediation, and 'cultures of violence' can further complicate peace settlement efforts.

*Nicole Ball* said that there are several categories of arms control measures which are well-suited to post-conflict situations. These include disengagement, demilitarization, disarmament and confidence-building measures. She emphasized, however, that countries emerging from prolonged periods of internal conflict often require comprehensive restructuring of their security services, in particular of the armed forces and the police, in order for such measures to be able to take root.

There was general agreement that, while there are a host of structural and cultural factors limiting arms control approaches in post-conflict situations, these factors do not necessarily prevent specific measures from functioning effectively, so long as they are recognized and taken into account. The ultimate aim should be to 'embed' arms control within the broader economic, political and socio-cultural framework of the conflict.

## IV. Arms control transparency and verification

### **The role of transparency and confidence-building measures**

According to *Thérèse Delpech*, there has been a tendency to overlook the important role that transparency measures can play in the arms control process. These measures can contribute to defusing military tensions and to enhancing crisis management and conflict prevention efforts. They include: exchanging information about defence expenditures and national military doctrines; conducting joint military and peacekeeping exercises; and reducing deployments of armed forces along sensitive border areas and configuring them to be clearly non-threatening in nature.

It was argued that a comprehensive approach should be taken to enhancing openness and transparency in armament- and defence-related matters, including arms exports and technology transfers. The European experience suggests that the process of building transparency can in itself serve as a key CBM that helps to clarify intentions, dispel suspicions and open new avenues for cooperation between states. This would be extremely useful, for example, in helping India and Pakistan to manage their increasingly danger-fraught military and nuclear relations.

*Eric Arnett* stated that there is a particular need to elaborate transparency measures and CBMs within the framework of the ongoing Russian-US negotiations on amendment of the ABM Treaty to permit the deployment of a limited NMD system by the USA. These measures could go a long way towards assuring Russia and China that the USA's proposed NMD system would not pose a serious threat to their strategic nuclear deterrent forces. In addition, states should be encouraged to sign and ratify the International Atomic Energy Agency Model Protocol (the '93 + 2' safeguards programme) for the application of enhanced nuclear safeguards.



### The limits of verification in the arms control process

Many of the participants expressed scepticism about the efficacy of arms control verification and safeguards arrangements. Indeed, the generally pessimistic tone of the discussions led one panellist to remark that his colleagues seem to have had 'an unhappy love affair with verification'.

A number of speakers cautioned that there has been a tendency in the past to expect too much from arms control treaty verification regimes. It is important to understand that existing treaty organizations have sharp limits with respect to verification, although they still have important norm-setting and other functions. What are often called 'verification' measures are in fact rather elaborate CBMs in which states can demonstrate their compliance with arms control treaties and safeguards agreements. There should be no illusions about what these measures can accomplish, and the limits of verification should be frankly acknowledged; with difficult cases, it must be recognized that the verification machinery in place is unlikely to detect all illicit or proscribed activities carried out by a determined cheater. The revelations following the end of the 1991 Persian Gulf War about the extent of Iraq's clandestine programmes to develop WMD and the means to deliver them provide cautionary lessons about the limits of verification and safeguards arrangements.

With respect to the question of how much verification is enough, *Terence Taylor* responded that it is the 'quality' of verification that matters, not merely the 'quantity'. He argued that confidence in verification procedures will not be enhanced simply by adding more inspectors to a particular treaty regime. As the experience of the United Nations Special Commission on Iraq (UNSCOM) suggests, the targeting of inspections is more important in uncovering potential violations than the conduct of random inspections. Indeed, this is one of the reasons why some states have attempted to exclude the use of information derived from national technical means of verification as a permissible basis within particular treaty verification regimes for calling challenge inspections. *Patricia Lewis* argued, however, that the value of random inspections should not be overlooked—as long as their limits are understood, they can be useful in adding data that otherwise would not have been available to the baseline of information. For example, random inspections would be beneficial within the broader matrix of information-gathering arrangements envisioned in the verification protocol for the BTWC.

*Rolf Ekéus* proposed that the UN should develop improved capabilities for providing early warning of possible non-compliant behaviour with arms control treaty provisions, particularly with respect to those treaties and conventions aimed at curbing the proliferation of WMD. This would involve creating within the UN Secretariat a small team of experts (chemists, physicists, nuclear engineers, biologists, etc.) whose mission would be to analyse patterns of suspect behaviour over time; in his experience, it is these patterns which hold the key to uncovering illicit or proscribed activities. Upon discovering a potential problem, the team of experts could then call it to the attention of the Secretary-General, who in turn could alert the Security Council.

There was considerable concern about the dangers arising from the international community's tendency to assume that arms control agreements are being verified adequately when in fact they are not. In this regard, some participants maintained that the BTWC was inherently unverifiable and that the creation of a BTWC organization would create a false sense of security that the treaty's provisions were being verified.

*Richard Perle* argued that, contrary to the view of many arms control advocates, it is better to have no agreement at all than a flawed one.

## V. The future of arms control and disarmament

The presentations made during the concluding panel discussion highlighted many aspects of current and potential security problems which arms control can be instrumental in addressing. These included:

- the acquisition and use of WMD by sub-state actors and ‘rogue states’;
  - the increasing numbers of civilian casualties in civil wars and internal conflicts;
- and
- the emergence of new military roles and missions for nuclear weapons.

A theme that appeared in many of the panellists’ remarks was that security in the 21st century will require a strengthening of existing universal institutions and mechanisms. In particular, the UN Security Council must be reformed to enable it to more effectively address threats and challenges to international security.

It was widely agreed that there is an urgent need to conceptualize a new arms control and disarmament agenda that will be able to address the risks and challenges likely to emerge in the future international security system. In this regard the recommendation was made to elaborate an agenda for arms control as an integral part of a common and cooperative security system.

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## Annexe B

# The Stockholm Agenda for Arms Control

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### I. Introduction

Under present conditions the political dimensions of the discussion of a new arms control agenda need to be given great weight. Therefore, arms control might usefully be one issue to be dealt with in a world political forum whose task would be to think through how international security can be enhanced.

Arms control cannot be seen exclusively as an element of international law. To focus on treaties, conventions and other legal instruments alone will not be sufficient to achieve the broad objectives set for arms control.

Through previous efforts a normative framework has been established in the area of nuclear, biological and chemical weapons-related arms control and disarmament. This normative framework cannot be maintained only through efforts to 'save' treaty processes perceived to be in danger if this is carried out against a background of deteriorating political relations between states.

A global normative framework has not been established for conventional arms control. Nevertheless, it is recognized that in certain conditions accumulations of conventional arms can represent a threat to international security. There is a need for the arms control agenda to extend beyond nuclear, biological and chemical weapons.

It is necessary to find a stable basis for evaluating and discussing arms control to prevent the discussion being driven by swings from optimism when a state ratifies a treaty to pessimism when discussions reach impasse.

If there has been less progress in arms control since 1995 than could have been hoped for, the overall framework is not in immediate danger of collapse. At the same time some serious problems need to be addressed.

The general risk of nuclear weapons use is extremely low. However, a small number of states are beginning to place an emphasis on the use of nuclear weapons as one important element of their military posture. This threatens the process of gradual marginalization of nuclear weapons that could be observed after 1990 and that is a precondition for nuclear disarmament.

While recent developments have shone a spotlight on the nuclear weapon programmes of some states, these programmes differ in important respects.

First, the nuclear weapon programmes of states that remain outside the normative framework on which nuclear arms control has been built were known and are not of recent origin.

Second, a few states have been discovered to be in material breach of nuclear weapons-related arms control and disarmament treaties or safeguards agreements. This is a greater threat to the non-proliferation regime than the activities of 'hold-out' states.

In the area of clandestine chemical and biological weapon programmes much less is known publicly than is the case for nuclear weapon programmes.

Nine years after the signing of the Charter of Paris for a New Europe (21 November 1990) outreach by states in the Euro-Atlantic area has not persuaded most regions of the merits of building cooperation and trust as devices to enhance national security.

States in Europe, and to a limited extent in the Americas, continue to make incremental revisions in conventional arms control arrangements. European states are also moving towards a subregional approach to arms control, believing that this will provide the most appropriate framework for addressing specific security challenges.

Outside Europe and the Americas no common security framework can be applied to conventional armed forces and their equipment at the present time. Governments in these regions see armed forces as the main instrument enhancing their state security. These armed forces are structured, trained and equipped through decisions taken without reference to the views or interests of neighbouring countries.

As a first step it will be necessary to develop an understanding—that does not currently exist—among the governments in these regions about what kinds of use of force are legitimate. Three legitimate uses of force have been identified in general terms: self-defence, the maintenance of internal order and support to actions taken in the community interest.

There is no common forum in which agreement on general principles can be translated into specific criteria against which actions involving the use of force can be evaluated.

This is true both for armed actions undertaken by states and for armed actions undertaken by non-state groups.

Therefore, informal networks should be established with a common goal in mind: the building of a common and cooperative security system that contains arms control as one important element. Such networks, which should not be formally integrated or hierarchical, might be arranged under the umbrella of a World Forum on Security and Arms Control—along the lines of the meetings to discuss economic issues convened in Davos, Switzerland.

## II. Objectives for the Stockholm Agenda for Arms Control

### **1. To initiate a focused dialogue on the political context in which arms control is being carried out**

Enhancing security and creating stability should not be regarded as synonymous in a time of rapid political and technological development. The main priority in security policy is the peaceful management of change.

Arms control cannot carry the full burden of this exercise. It follows that arms control should be seen as one element in the development of a common and cooperative international security system.

This political dialogue should not be seen as an alternative to efforts to achieve implementation of and compliance with existing treaties and conventions.

On the contrary, it is argued that this dialogue would be more likely to generate the political momentum needed to bring about implementation and compliance.

One trap that should be avoided is an attempt to expand the definition of arms control to include all aspects of security. The common and cooperative security system would include other pillars—related to democratization, protection of human rights



and economic growth. Excessive claims or unrealistic expectations about what can be achieved using arms control to address these issues will weaken the utility of arms control where it can play an important part.

While arms control cannot substitute for peace settlements or conflict resolution, recent experience has suggested that some arms control instruments can become a useful element of a wider process of post-conflict settlement and reconstruction.

Where a military potential is outside state control and in the hands of non-state actors, traditional arms control approaches are more difficult to apply. Nevertheless, the attempt should be made to build a consensus that possession of military-style arms can only be legitimate in the hands of the state. Respect for the Organization for Security and Co-operation in Europe (OSCE) Code of Conduct on Politico-Military Aspects of Security is a necessary part of building this consensus.

Arms control, a political and legal concept, is not likely to apply where military potential is employed only in pursuit of financial gain. In those cases where the political class has become criminalized and/or the criminal class has entered politics there will not be a sufficient basis of trust to conduct successful arms control.

While enhanced international cooperation may be needed to address terrorist acts, arms control is not likely to play a role in this cooperation.

## **2. To revitalize the institutional framework for making and implementing arms control policy without assuming the primacy of any single institution**

At present there is no general common and cooperative security system based on the peaceful resolution of disputes and the progressive demilitarization of international politics outside the Euro-Atlantic area. Creating such a system will depend on 'order-building diplomacy'—developing tacit and explicit rules that should be respected as well as mechanisms for addressing violations through actions that enjoy the legitimacy conferred by broad international agreement.

It will be necessary for states to cooperate in new ways, organized primarily on the basis of 'relevant membership'.

In trying to solve a given problem participation is needed from those that are most affected and have the most at stake, on the one hand, and those with the requisite material, human and financial resources to contribute to solutions, on the other. The participants will by definition be determined ad hoc as each issue has its own character and dynamic.

It is preferable for states and other political entities to apply common approaches through existing organizations.

To avoid the possible marginalization of the United Nations in the field of security and arms control, there is a need to arrange informal but regular discussions within the Security Council at the level of heads of state and government.

With exceptions—in Europe and in the Americas—a system of regional organizations called for in the early 1990s has not been developed to find effective mechanisms for managing threats and challenges to international security through peaceful means.

In Europe the discussion of security has not been conducted in a single organization. Rather, partners selected by the criteria of relevant membership have been

mobilized through several organizations. Rules and procedures need to be sufficiently flexible to accommodate new realities.

### **3. To organize the relations between major powers in ways that minimize the risk of war**

The new international security environment notwithstanding, differential growth rates in political, economic and military power in the political entities that populate world politics still have to be accommodated in a decentralized system.

Historically, discontinuities of this type—as some powers rise and others decline—have led to conflicts between major powers when not managed effectively. There is no consensus on whether the prospect of great power war has been eliminated or whether we are currently in an interim period, after which a new constellation of forces will form around poles that will once again seek to balance one another, including by military means.

At present there are states that are regarded as major powers that do not meet the criteria established for relevant membership in the security system.

The European Union (EU) is strengthening its ability to act in a coherent way in the international arena in the future even though the EU itself is not, so far, an actor with legal personality in the field of foreign policy. In their focus on security the EU member states could complement their discussion of military capacity with stronger efforts to define common strategies towards arms control problems. Where common strategies can be defined they could be pursued through joint actions.

Russia is interested to develop a common and cooperative security system that acknowledges the importance of non-military aspects of security. To achieve such a system Russia has a strong self-interest to ensure that it does not contribute—by accident or design—to material breaches of nuclear, biological and chemical weapon-related agreements.

Implementing disarmament and non-proliferation agreements is made more difficult by the frustration felt in Russia about the decline of its domestic society and international status. An emphasis by Russia on the duty to accept the responsibilities and burdens associated with implementing these agreements could generate a new willingness in other states to assist Russia in developing habits of social cooperation and productivity that will be the basis for economic regeneration.

While China places the highest priority on managing the rapid changes in its domestic political and economic environment, there has been a progressive integration of China into international discussions of arms control and disarmament.

There is a mutual interest in accelerating the pace of this integration if that could reduce the risk that an adversarial relationship may develop between China and other major powers.

In some areas—for example, in trying to develop a normative framework for conventional arms control—other states, perhaps not usually regarded as major powers, have been prominent.

These states lack permanent representation in many of the organizations and even in informal institutions that have become important forums for security-related discussions.

#### **4. To engage the USA in the international system on the basis of responsible leadership within a common framework**

The United States is under no strong pressure to accommodate the interests of other states and finds it difficult to modify approaches that no doubt appear perfectly sensible viewed from Washington.

The temptation to develop solutions alone and to see international organizations and institutions as agents for implementation is strong in a unipolar world.

To defuse increasing complaints about the perceived tendency to act unilaterally, the USA would be wise to go out of its way to pay attention to the views and interests of other actors when crafting its arms control policies.

Nevertheless, if, as of today, US involvement in the management of international security can sometimes seem to cause problems, far greater problems could arise from US non-involvement.

In addition to the United States' role in responding to the historic inability of European states to manage their affairs using peaceful means, the USA has played a central role in the search for security in every part of the world.

Success in securing US participation will depend mainly on the capacity of US actors to win their arguments with those domestic constituencies opposed to continued engagement. However, many US interests will have to be accommodated by other states in order to strengthen the positive incentives for continued engagement.

#### **5. To manage relations with the few states outside the normative framework for nuclear, biological and chemical weapons-related arms control and disarmament**

There is wide agreement on the normative framework in place related to nuclear, biological and chemical weapons. This means that voluntary compliance by states can be expected in most cases.

Accurate information about the presence and scope of programmes for nuclear, biological and chemical weapons and delivery systems is a precondition for effective action whether in the framework of treaties or through other instruments—such as export controls.

Among the group of states committed to voluntary compliance with arms control, disarmament and non-proliferation norms there is a need to communicate information about programmes of concern efficiently.

There are a small number of states outside this framework of voluntary cooperation. These states fall into two categories that need to be treated differently.

First, a small group of states has been discovered to be in systematic material breach of arms control and disarmament undertakings that they have accepted through treaties. This is the greatest threat to the arms control, disarmament and non-proliferation regime because such activities undermine the cooperation between states in compliance for the purpose of mutual reassurance.

There has been a contrast between the international response to illegal nuclear programmes in Iraq and in North Korea.

In the case of Iraq the UN Security Council has maintained a direct and continuous involvement in the process of bringing Iraq into compliance with its legal commit-

ments. In the case of North Korea the Security Council provided a general authorization, encouraging member states to facilitate a solution to the problem of North Korean non-compliance with the safeguards obligations associated with the Non-Proliferation Treaty.

In both cases specialized agencies have assisted the world community and major states in the search for a solution to the problem of non-compliance. In Iraq the United Nations Special Commission on Iraq (UNSCOM), the International Atomic Energy Agency (IAEA) and recently the Organisation for the Prohibition of Chemical Weapons have played an important role. In North Korea the IAEA has both revealed the problem and remained actively engaged.

At the time of writing, neither approach to managing non-compliance had succeeded completely. Both Iraqi and North Korean programmes remain a serious cause for concern.

In the absence of effective alternatives, powerful states will not formally exclude the option of responding with coercive diplomacy or even force in cases of treaty non-compliance.

Second, weapon programmes of concern exist in states outside the normative framework on which nuclear arms control has been built. These programmes of concern consist mainly of nuclear weapon programmes in India, Israel and Pakistan, and chemical weapon programmes, in particular those of Middle Eastern states.

Existing arms control treaties create international law obligations only for the states party to them. States have a right to remain outside the negotiation of a treaty or not to sign a treaty that has been negotiated. It is illegal to coerce a state into accepting a treaty.

To try to make a state comply with an agreement that it had not signed would be particularly difficult in the area of arms control. The effect would probably be to raise the importance of military capability in the eyes of governments that fear coercion. A reversion to power politics in a particularly raw form could be one consequence and political momentum could be generated for a build-up of military power.

The small group of states that cannot be persuaded to join existing arrangements may not modify a legal and normative arms control framework in which they do not participate. The basis for managing relations with this group of states has been found between the extremes of confrontation and concession.

Four general approaches can be identified:

- denying the material and technological base needed to develop weapons,
- deterrence,
- protection,
- removal by force.

The appropriate mix between these approaches is controversial.

There is a need to accommodate the concerns of the states that do not see value in arms control as a security policy instrument. This could be achieved through support to regional processes aimed at the normalization of relations between states in areas of conflict, including the discussion of confidence- and security-building measures.

## **6. To establish a rule-based agreed framework for the legitimate use of force in the new security environment**

In most parts of the world a commitment to the concept of cooperative security is lacking along with the institutional framework needed to conduct arms control and disarmament talks at the regional level.

Security sector reform has been defined as a preliminary step. There is a need to build the capacity of states to conduct a dialogue on the political and administrative arrangements needed to manage the security sector, including not only the military but also paramilitary and other internal security forces. The process involves both professional training and the development of a common vocabulary, without which it will be difficult even to discuss arms control in a serious way.

The discussion of arms control will need to include the specific security environment of a given region or subregion as well as the policies of external states that play an important role in creating the military potential of armed forces through international arms and technology transfers.

It has not been possible to agree an operational definition of an illicit arms and technology transfer. Preventing illicit arms transfers therefore raises domestic law enforcement rather than wider politico-military questions.

Under these conditions it is important for the arms control agenda to consider state-sponsored military assistance to sub-state actors.

The logic of military assistance to sub-state groups was understood during the cold war. It would be useful to consider whether there are any conditions in which it would be legitimate to supply arms and military technology to sub-state actors.

It has been difficult to engage in technical discussions of licensing and enforcement provisions of national export/import control procedures because, outside a relatively small number of states, these procedures are insufficiently developed to make such a dialogue meaningful.

### **III. The main approach to achieving the objectives**

The common and cooperative security system is defined outside the framework of existing institutions and organizations.

Therefore, achieving the objectives of the Stockholm Agenda for Arms Control will depend on actions taken by states and in international organizations. No single organization and no single state can carry the burden of implementation.

It would not be desirable if widening the circle of participation in the discussion of arms control and disarmament led to a reduction in coherence.

Since an integrated security architecture is not proposed, the question naturally arises how communications will be achieved between the different state and non-state actors that exist within the system.

This communication could be conducted through informal networks at this particular moment in time.

Such networks need to be of different kinds, reflecting the variety of problems identified. Informal networks should not be formally integrated or hierarchical.

It would be useful to organize a regular annual meeting at which participants in the informal networks can exchange information and ideas about steps they have taken and problems they have encountered in implementation of the agenda.

It would also be useful to organize in a systematic manner forms of communication relying on new developments in telecommunications, including the Internet, that could play an important role in information exchange between annual meetings.

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