

14. Multilateral export controls

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I. Introduction

This chapter describes identified changes in the guidelines and procedures of five multilateral export control regimes: the Australia Group (AG), the Zangger Committee, the Missile Technology Control Regime (MTCR), the Nuclear Suppliers Group (NSG) and the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies (WA).

In 2001 Bulgaria joined the Australia Group, and South Korea joined the MTCR, in each case bringing the number of participating states to 33. There are now 41 states that participate in one or more of the regimes while 27 states participate in all of them. The European Commission also participates in the Australia Group and the Zangger Committee and is represented in the NSG as an observer.¹ Table 14.1 lists the members of each regime.

In 2001 the MTCR completed work on a draft International Code of Conduct against Ballistic Missile Proliferation. The draft will be discussed among states with a view to adopting the code in 2002.

Multilateral export control will play a role in counter-terrorism measures. The annual plenary meeting of the MTCR was one of the first opportunities at which officials could discuss the implications of the attacks on the United States that occurred on 11 September 2001.² In early October the AG participating states discussed the role of export controls in reducing the threat of terrorist attacks using chemical and biological weapons (CBW). The group underlined that their objectives include preventing the acquisition of CBW by non-state actors.³

In December 2001 the participating states agreed to modify the initial elements of the Wassenaar Arrangement to make clear their commitment to prevent the acquisition of conventional arms and dual-use goods and technologies by terrorist groups and organizations as well as by individual terrorists.

¹ The Zangger Committee is an informal group of states that meet to discuss how to interpret their obligations under Article 3.2 of the 1968 Non-Proliferation Treaty (NPT). The committee is not part of the NPT. For additional information see URL <http://projects.sipri.se/expcn/NSG_documents.html>.

² The meeting took place in Ottawa on 25–28 Sep. 2001.

³ *The Australia Group: Tackling the Threat of Chemical and Biological Weapons*, Media Release 1 Oct. 2001, Document AG/Oct01/Press/Chair/24. Australia Group documents are available on the Internet at URL <<http://www.australiagroup.net>>. The Australia Group is an informal network of countries that consult on and harmonize national export licensing measures that apply to lists of items agreed among the group. The participating states have agreed 6 lists of items and have made a political commitment to ensure that all items on these lists are subject to national export controls. The objective is to prevent trade and international cooperation from contributing to CBW programmes.

Table 14.1. Membership of multilateral weapon and technology export control regimes, as of 1 January 2002

State	Zangger Committee ^a 1974	NSG ^b 1978	Australia Group ^a 1985	MTCR ^c 1987	Wassenaar Arrangement 1996
Argentina	x	x	x	x	x
Australia	x	x	x	x	x
Austria	x	x	x	x	x
Belarus		x			
Belgium	x	x	x	x	x
Brazil		x		x	
Bulgaria	x	x	x ^d		x
Canada	x	x	x	x	x
China	x				
Cyprus		x	x		
Czech Republic	x	x	x	x	x
Denmark	x	x	x	x	x
Finland	x	x	x	x	x
France	x	x	x	x	x
Germany	x	x	x	x	x
Greece	x	x	x	x	x
Hungary	x	x	x	x	x
Iceland			x	x	
Ireland	x	x	x	x	x
Italy	x	x	x	x	x
Japan	x	x	x	x	x
Korea, South	x	x	x	x ^d	x
Latvia		x			
Luxembourg	x	x	x	x	x
Netherlands	x	x	x	x	x
New Zealand		x	x	x	x
Norway	x	x	x	x	x
Poland	x	x	x	x	x
Portugal	x	x	x	x	x
Romania	x	x	x		x
Russia	x	x		x	x
Slovakia	x	x	x		x
Slovenia	x	x			
South Africa	x	x		x	
Spain	x	x	x	x	x
Sweden	x	x	x	x	x
Switzerland	x	x	x	x	x
Turkey	x	x	x	x	x
UK	x	x	x	x	x
Ukraine	x	x		x	x
USA	x	x	x	x	x
Total	35	39	33	33	33

Note: The years in the column headings indicate when the export control regime was formally established, although the groups may have met on an informal basis before then.

^a The European Commission participates in this regime.

^b The Nuclear Suppliers Group. The European Commission is represented in this regime as an observer.

^c The Missile Technology Control Regime.

^d Became a member of the regime in 2001.

II. The Missile Technology Control Regime

The MTCR is an informal, voluntary association of countries that share the goal of non-proliferation of unmanned delivery systems for weapons of mass destruction and seek to coordinate national export licensing efforts aimed at preventing their proliferation. It was established by seven states in 1987. In 2001 South Korea participated fully in the MTCR, bringing the number of participating states to 33.⁴

The full participation of South Korea had been under discussion for several years. However, the South Korean Government did not submit a formal request to participate until January 2001—after determining the future of its own ballistic missile programme.⁵ Until January 2001 South Korea was bound by a 1979 bilateral understanding with the USA according to which it would not develop missiles with ranges in excess of 180 km. In response to the development of ballistic missiles by North Korea, South Korea has expressed an interest in developing missiles with ranges up to 500 km.⁶ Under an agreement with the USA reached in January 2001, the South Korean Government adopted new guidelines that enabled it to develop and produce guided missiles able to deliver a 500-kg payload to a range of up to 300 km.⁷ This cleared the way for South Korea to participate in the MTCR, which requires a consensus among current participants.

The plenary meeting of the MTCR took place after the 11 September terrorist attacks on the USA. During the general information exchange, the possession of Scud missiles by the Taliban forces in Afghanistan and the possible implications was one of the issues taken up by participating states.

MTCR compliance issues

In 2001 the MTCR continued to discuss the issue of compliance with agreed measures. The national approaches of Russia and the United States to implementing their MTCR obligations have attracted particular attention.

Russia continued to modify its national export control system, partly in response to allegations that it did not comply with its MTCR commitments.

Allegations related to Russia focus on two different issues. First, the allegation has been made that Russian entities continue to supply missile-related items to missile programmes of concern—including Iran and North Korea, whose nuclear programmes cause proliferation concerns to the USA, in par-

⁴ Plenary Meeting of the Missile Technology Control Regime, Ottawa, Canada, 25–28 Sep. 2001, Press Release, 28 Sep. 2001.

⁵ S. Korea's New Missile Guidelines: Guidelines Balance Security, Non-Proliferation, Statement by Richard Boucher, Spokesman, US Department of State, 17 Jan. 2001, URL <<http://usinfo.state.gov/topical/pol/arms/stories/01011702.htm>>.

⁶ It is discussed in Anthony, I., 'Responses to proliferation: the North Korean ballistic missile programme', *SIPRI Yearbook 2000: Armament, Disarmament and International Security* (Oxford University Press: Oxford, 2000), pp. 647–66.

⁷ 'ROKG official notes ROK to be full member of MTCR in March', Seoul Yonhap, 21 Mar. 2001, in Foreign Broadcast Information Service, *Daily Report—East Asia (FBIS-EAS)*, FBIS-EAS-2001-0321, 21 Mar. 2001.

ticular. Second, Russia has continued to have the more aggressive export orientation in its aerospace and arms industries that was observed in 2000. President Vladimir Putin has, in effect, annulled political agreements about military–technical cooperation with several countries of concern reached bilaterally with the USA by President Boris Yeltsin.⁸ Of particular concern has been Russian marketing of missiles such as the Yakhont cruise missile and the Iskander-E land-based missile in the Middle East and South Asia.⁹

At the same time, developments in Russia's export control system in 2001 were expected to reduce the probability that missile technologies could be exported without the consent of the responsible Russian authorities. Through a Presidential Decree issued in April 2001 transfers of items on the Russian national control list developed for missiles and missile-related technologies using intangible means required a licence.

As a result, any operation or transaction resulting in the transfer of controlled items either to a foreign country or to a foreign person (including so-called 'deemed exports' of cases where a foreign person in Russia gained access to such items) became an activity subject to licence. This includes transfers via electronic means.¹⁰ In order to assist with enforcement of these controls, in particular enforcement of intangible technology transfers,¹¹ Russia revised its export control reporting system to include the Ministry of Education and the Russian Academy of Science in the system of reporting to the Russian Federation Export Control Commission. These bodies would be required to create systems to ensure that the activities of Russian scientists with access to items and technologies subject to control were consistent with the export control laws and, similarly, to ensure compliance with the regulations by foreign students studying in Russia.¹²

In the case of the United States, governments in several other countries continued to complain about the use of US national legislation to control not only US exports but also activities taking place in other states. The National Defense Authorization Act for Fiscal Year 1991 requires mandatory US sanctions against foreign persons who export an item in the MTCR Annex to a country that is not a member of the MTCR.¹³

⁸ Anthony, I., 'Multilateral weapon and technology export controls', *SIPRI Yearbook 2001: Armament, Disarmament and International Security* (Oxford University Press: Oxford, 2001), pp. 615–39.

⁹ The Russian Agency for Conventional Armaments (RAV) has described the Iskander-E missile as a weapon of deterrence in local conflicts and a strategic weapon for small countries. The Iskander-E, a conventionally armed version of a missile being developed in Russia for a range of missions, including delivery of tactical nuclear weapons, is marketed as MTCR-compliant in that it has a range lower than 300 km. The RAV is a government agency to which Russian enterprises report and which, in effect, represents their interests within government.

¹⁰ 'Russia endorses export rules to prevent development of chemical weapons', Interfax (Moscow), 28 Sep. 2001, in Foreign Broadcast Information Service, *Daily Report—Central Eurasia (FBIS-SOV)*, FBIS-SOV-2001-0928, 1 Oct. 2001.

¹¹ Intangible technology transfers are discussed in Anthony (note 8), pp. 631–35.

¹² In recent years high-profile cases have been reported of foreign students gaining access to controlled technologies through participation in international scientific projects in Russia or with Russian partners.

¹³ National Defense Authorization Act for Fiscal Year 1991, Public Law 101-510, Nov. 5, 1990, sections 1702 and 1703.

Missile-related sanctions have been applied against Chinese entities on several occasions in the past (in 1991 and 1993). China is not a member of the MTCR and has complained that the USA is using sanctions to apply US laws in cases where China has not broken any commitment or undertaking that it has given. The question of how to avoid a situation arising in which the USA would be compelled to introduce missile-related sanctions against China became an important issue in Chinese–US bilateral relations. In 1994 President Bill Clinton lifted the sanctions after China issued a statement agreeing not to export ground-to-ground missiles inherently capable of delivering at least a 500-kg payload with a range of at least 300 km. In 2000 China issued a more specific statement about how it would translate this commitment into its national export control system.¹⁴

The George W. Bush Administration has paid close attention to missile proliferation in bilateral talks with China, in particular Chinese implementation of commitments given in November 2000.¹⁵ In August 2001 officials held talks intended ‘to clarify China’s willingness to implement fully the terms of the November 2000 missile agreement’. The talks were described as ‘inconclusive’.¹⁶ Prior to the meeting public reports suggested that the United States was still concerned about Chinese exports to Pakistan of items considered to be for use in Pakistan’s missile programme.¹⁷

At the beginning of September the USA determined that Chinese and Pakistani entities had engaged in missile technology proliferation activities.¹⁸ Accordingly, US law required the denial for two years of export licence applications authorizing the export of controlled missile technology items to entities found to have been engaged in missile-related transfers.

In China this decision led to sanctions being applied to the China Metallurgical Equipment Company, and in Pakistan sanctions were applied to the National Development Complex. In each case no new US Government contracts may be concluded with either entity for MTCR Annex-controlled equipment or technology for two years, while any licence applications to export MTCR Annex-controlled equipment or technology to either entity will be denied for two years.¹⁹ Under the US Arms Export Control Act the Chinese Government was also subject to sanctions. Accordingly, export licences will

¹⁴ China agreed to elaborate a list of goods and technologies that could contribute to missile development and production and to ensure that exports of these items would be subject to control. See Anthony (note 8); and chapter 5 in this volume.

¹⁵ In Nov. 2000 the Chinese Foreign Ministry issued a statement that China would shortly introduce into its export control legislation a comprehensive list of missile-related items and dual-use items that could not be exported without authorization.

¹⁶ State Department spokesman Philip Reeker, ‘US and China wrap up missile talks in Beijing’, 24 Aug. 2001, URL <<http://www.nautilus.org/napsnet/dr/0108/AUG24.html#item8>>.

¹⁷ ‘Sino-US missile talks officially halted’, Hong Kong Agence France Press, 24 Aug. 2001, reproduced in Foreign Broadcast Information Service, *Daily Report—China (FBIS-CHI)*, FBIS-CHI-2001-0824, 24 Aug. 2001.

¹⁸ ‘Bureau of Nonproliferation: imposition of missile proliferation sanctions against a Chinese entity and a Pakistani entity’, *Federal Register*, vol. 66, no. 176 (11 Sep. 2001), p. 47256.

¹⁹ ‘Pakistan, China’s principled stand’ in Islamabad Khabrain (in Urdu) 4 Sep. 2001, reproduced as ‘Daily hopes world to oppose “unjustified” US sanctions on China, Pakistan’, FBIS-CHI-2001-0905, 4 Sep. 2001.

be denied for MTCR Annex-controlled equipment or technology to 'all activities of the Chinese government relating to the development or production of missile equipment or technology and all activities of the Chinese government affecting the development or production of electronics, space systems or equipment, and military aircraft'.²⁰ In addition, no US Government contracts may be placed involving the activities described above for a two-year period.²¹ These sanctions may impact on the ability of US companies to use Chinese satellite launch facilities.

The imposition of the sanctions placed a question mark over the resumption of Chinese–US talks on how to implement the November 2000 agreement.²²

The International Code of Conduct and efforts to control ballistic missile proliferation

While the ongoing proliferation of ballistic missiles capable of delivering nuclear, biological and chemical (NBC) weapons creates a security challenge, states have not put in place a system of international legal control. During 2000 and 2001 discussions within the MTCR aimed to develop an International Code of Conduct against Ballistic Missile Proliferation (ICOC) and to bring about the adoption of such a code.²³ At the plenary meeting in Ottawa in September 2001 a final draft code was agreed among the MTCR participating states.²⁴

The draft ICOC contains a set of broad principles against ballistic missile proliferation, in favour of peaceful uses of space and supporting existing non-proliferation regimes. The draft also contains some confidence-building measures (CBMs) in the form of annual disclosures of information on ballistic missile and space launch vehicle (SLV) programmes and advance notification of ballistic missile and SLV launches.

The ICOC is only one of several initiatives currently taking place that is intended to put in place a system of international control for missiles. The United Nations has on its agenda the question of 'missiles' in all their aspects, while Russia has stimulated discussion of missile proliferation by proposing the creation of a Global Control System for Non-Proliferation of Missiles and Missile Technologies (GCS).

These processes suggest that many states see a need for an international instrument addressing the security impact of missiles, but there is no agree-

²⁰ 'Bureau of Nonproliferation' (note 18).

²¹ 'Bureau of Nonproliferation' (note 18).

²² He Yafei, an official from the Chinese embassy in Washington, is quoted as saying 'we want to engage in dialogue with the United States to find a way out, but sanctions have to be lifted first. The US side cannot expect, as with other countries, to continue with China on nonproliferation consultations while sanctions are in place'. Agence France Press (Hong Kong), 18 Sep. 2001, reproduced in 'China warns US to lift sanctions before resuming proliferation talks', FBIS-CHI-2001-0918, 18 Sep. 2001.

²³ The code is based on a Canadian proposal put forward in the 1999 plenary meeting of the MTCR in Noordwijk, the Netherlands.

²⁴ The final draft is available at URL <<http://projects.sipri.se/expcon/drafticoc.htm>>.

ment on the purpose of such an instrument, its scope and legal form or the details of how it might operate.

Recent experience in other arms control processes raises doubts that such disagreements could be sufficiently narrowed in open-ended discussions in global forums to permit the adoption of any text. However, the objective of the MTCR participating states is to have a code adopted by as many states as possible and within a reasonable time.

Achieving a multilateral agreement on missile proliferation could have been pursued through the United Nations. In November 2000 the UN General Assembly requested the Secretary-General to prepare a report on missiles with the assistance of a panel of governmental experts for consideration in 2002.²⁵ The General Assembly also sought the views of member states on this question and, as of August 2001, had received nine replies.²⁶

A comparison of the contents of the replies points to some of the difficulties in agreeing on a single approach in the UN context. The Russian response makes clear that the UN focus should be on missile proliferation, with a particular emphasis on ‘the political instability in individual regions of the world’ and the efforts of states ‘to stimulate industrial and economic development through access to missile and space technologies’.²⁷ The Russian view is that other missile-related issues are better addressed through bilateral arrangements between states and, in particular, between Russia and the USA.

Similarly, the European Union (EU) member states were critical of the UN process, which ‘lacks sufficient focus, in particular regarding what we see as the overriding problem in the field of missiles, that is, the proliferation of ballistic missiles, and in particular those capable of carrying weapons of mass destruction’.²⁸

The reply by Pakistan explicitly rejects this focus, arguing that ‘considering the issue of missiles in the limited context of “horizontal proliferation” will inevitably lead to partial, iniquitous and controversial solutions’.²⁹

China introduced another point of potential disagreement by underlining the need for any agreement to promote international cooperation on the peaceful use of outer space.³⁰

A Russian suggestion to create a GCS was announced at the opening of the 2000 Review Conference of the 1968 Non-Proliferation Treaty (NPT). The GCS would have three main elements. First, there would be a multilateral transparency regime applied to missile launches described by Russian officials

²⁵ Resolutions adopted by the General Assembly, 55/33. General and complete disarmament: missiles, UN document A/Res/55/33, 12 Jan. 2001.

²⁶ Replies were received from Belarus, Bolivia, China, El Salvador, Mexico, Pakistan, Russia, Saudi Arabia and Sweden (on behalf of the European Union).

²⁷ Russian Federation response contained in Missiles: Report of the Secretary General, UN document A/56/136, 5 July 2001.

²⁸ Sweden (on behalf of the states members of the United Nations that are members of the European Union) response contained in Missiles: Report of the Secretary General (note 27).

²⁹ Pakistan response contained in Missiles: Report of the Secretary General, UN document A/56/136/Add.2, 6 Sep. 2001.

³⁰ Chinese response contained in Missiles: Report of the Secretary General, UN document A/56/136/Add.1, 15 Aug. 2001.

as a CBM.³¹ This mechanism would be based on existing bilateral Russian–US arrangements in the area of missile launch notification. Under these arrangements a Joint Data Exchange Center (JDEC) would be established in Moscow. According to the Russian proposal, the establishment of the JDEC would create the technical capacity to establish a repository for data on launches by other states in the framework of a multilateral arrangement. Second, under the GCS positive security assurances would be provided to states that renounce national missile programmes. Third, multilateral consultations would be arranged on the problem of missile proliferation.³²

Russian officials have been invited to explain in more detail how the GCS would function and have briefed their counterparts about it in, for example, the NATO–Russian Permanent Joint Council (PJC) and in two seminars for officials organized in Moscow in March 2000 and February 2001. However, at these meetings no draft text was proposed, although texts were produced that explained the GCS in general terms. The USA decided not to participate in additional meetings in Moscow and also stayed away from an international conference on the peaceful uses of space organized in Moscow in May 2001.³³

Representatives of the MTCR participating states took part in the UN deliberations and attended the GCS-related meetings in Moscow. These processes are not considered to be incompatible with or to exclude the need for the ICOC. The MTCR participating states consider the ICOC to be the most advanced and the most promising of the current initiatives in that a text has been prepared and a process for its adoption has been decided upon.

The MTCR participating states have agreed to use their own diplomatic channels to develop the greatest possible support for the draft text of the ICOC as agreed in the Ottawa MTCR plenary. In July 2001 the European Union adopted a common position on the fight against ballistic missile proliferation, pledging to support the universalization of the ICOC and to ‘actively support an ad hoc international negotiating process, leading to an International Conference for its adoption no later than 2002’.³⁴

At the beginning of February 2002, 78 states endorsed the draft ICOC at a meeting in Paris.³⁵ European Union states will coordinate and facilitate preparations for an international conference that is expected to take place at the end of 2002.

The draft ICOC as released from the MTCR is seen as a politically binding measure that can be modified by consensus (i.e., unless consensus is obtained the text will not be changed). Aware of the criticism of unfairness levelled

³¹ Described in Kile, S. N., ‘Nuclear arms control and ballistic missile defence’, *SIPRI Yearbook 2001* (note 8), pp. 439–40.

³² Missiles: Report of the Secretary-General (note 27).

³³ ‘Russian Foreign Ministry official bewildered by no US official presence at space forum’, ITAR-TASS, 10 Apr. 2001, in Foreign Broadcast Information Service, *Daily Report—Central Eurasia (FBIS-SOV)*, FBIS-SOV-2001-0410, 10 Apr. 2001.

³⁴ Council Common Position of 23 July 2001 on the fight against ballistic missile proliferation (2001/567/CFSP), *Official Journal of the European Communities*, L 202, 27 July 2001, p. 1.

³⁵ US Department of State, *Draft International Code of Conduct Against Ballistic Missile Proliferation*, Feb. 11 2002; and Nartker, M., ‘International response: code of conduct ineffective, experts say’, *Global Security Newswire*, Feb. 15 2001.

against the MTCR by non-participating states, it was proposed that the 'universalization of the draft code should take place through a transparent and inclusive negotiating process open to all states on the basis of equality'.³⁶

Some consultation on the draft code took place during its elaboration. The MTCR participating states reported the existence of the ICOC to the UN General Assembly and to the Conference on Disarmament (CD), and circulated the preliminary draft text to all CD participating states.

Distributing the document gave states an opportunity to consider its contents and to pass their views to the MTCR participating states should they wish to do so, although it was not proposed that the CD should take up the ICOC as an element of its agenda.³⁷ In addition, a roundtable discussion of the draft code in Warsaw in May 2001 was attended by a number of critical states that do not participate in the MTCR, including China and India.

The draft ICOC is seen as a step towards the development of globally accepted norms in support of ballistic missile non-proliferation. The first section elaborates principles that states will abide by when subscribing to the code. The second section contains general measures to be implemented by states, including a commitment to reduce, where possible, national holdings of ballistic missiles capable of delivering weapons of mass destruction. The third section addresses the issue of cooperation with states which eliminate existing ballistic missile programmes or space launch vehicle programmes.

The fourth section of the draft ICOC describes transparency measures that subscribing states agree to implement with respect to ballistic missile programmes and SLV programmes. The measures consist of annual declarations and information exchange on national policies, on the number and generic class of ballistic missiles and SLVs launched during the preceding year, and pre-launch notification for ballistic missile and SLV launches and test flights.

A fifth section describes organizational aspects of the code consisting of a schedule of meetings, a mechanism for information exchange and a mechanism for voluntary resolution of questions arising from declarations.

The development of the ICOC has been managed by MTCR states in a way that is both flexible and innovative, although whether this is sufficient to lead to the successful adoption of a text remains to be seen.

III. The Nuclear Suppliers Group

The Nuclear Suppliers Group was established in 1978 following three years of discussion among seven nuclear supplier countries (Canada, France, the Federal Republic of Germany, Japan, the UK, the USA and the USSR). It is an informal arrangement of nuclear supplier states that seek to prevent the acqui-

³⁶ Plenary Meeting of the Missile Technology Control Regime, Ottawa, Canada, 25–28 Sep. 2001, Department of Foreign Affairs and International Trade Press Release, 28 Sep. 2001, available at URL <<http://projects.sipri.se/expcon>>.

³⁷ Russia has made reference in national statements to the possibility that the United Nations would have a primary role in the practical elaboration of an agreement or agreements, while Pakistan has insisted that discussing the question in the United Nations is essential.

sition of nuclear weapons by states other than those recognized as nuclear weapon states in the framework of the NPT.

The NSG has developed Guidelines for Nuclear Transfers and Guidelines for Nuclear-Related Dual-Use Equipment, Materials, Software and Related Technology that participating states apply in making national decisions about what kinds of exports to authorize. It has also drawn up lists of items to which these guidelines apply. These guidelines and lists are published by the International Atomic Energy Agency (IAEA) as INFCIRC/254.³⁸

Apart from questions of membership and list development, in 2001 the NSG established a Consultative Group. This is a standing body that facilitates consultations among participating states on, for example, the interpretation of agreed guidelines for nuclear supply.³⁹

The NSG participating states decided to establish an Internet site to facilitate access to public documents.⁴⁰ This decision was one more measure within a transparency initiative launched several years ago to explain the objectives and procedures of the NSG. The Internet site will be managed by the German Government on behalf of the NSG.

In 2001 the European Union withdrew an offer to finance the establishment of a secure fax network connecting NSG participating states. The offer, made in 1999 and to be supported using common funds, was revoked because no countries had taken it up. These funds were released for other purposes.

Another set of issues concerned how to interpret Russian nuclear cooperation with India in the context of NSG guidelines. This is not a new issue for the NSG to consider. In 1998 the NSG tried, unsuccessfully, to persuade Russia not to supply two nuclear reactors to India.⁴¹

This issue was raised again when Russia agreed to sell 58 tonnes of low-enriched uranium fuel pellets to India's nuclear power station at Tarapur. This agreement was reached in October 2000, at which time Indian reports suggest that India and Russia also discussed the question of additional supplies of reactors.⁴² Indian reports quote the chief of the Indian Atomic Energy Commission, Anil Kadodkar, as saying that Russia offered to supply four new reactors for the Kudamkulam power plant in Tamil Nadu during a meeting of the Indo-Russian joint commission in Moscow in January 2001.⁴³

Under the NSG guidelines nuclear suppliers have committed themselves not to supply controlled items to any end-user unless the recipient country has

³⁸ Communications Received from Certain Member States Regarding Guidelines for the Export of Nuclear Material, Equipment and Technology, INFCIRC/254/Rev.4/Part 1, 15 Mar. 2000; and Communications Received from Certain Member States Regarding Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Materials, Software and Related Technology, INFCIRC/254/Rev.4/Part 2*, 9 Mar. 2000. IAEA documents are available at URL <<http://www.iaea.org/worldatom/Documents/>>.

³⁹ Press Statement, Nuclear Suppliers Group Plenary Meeting, Aspen, Colo., 10–11 May 2001.

⁴⁰ Nuclear Suppliers Group, URL <<http://www.nuclearsuppliersgroup.org>>.

⁴¹ Hibbs, M., 'Russia-India: West may pressure IMF on Russian reactor sales', *Global Beat: Nuclear Watch*, June 26 1998, URL <<http://www.nyu.edu/globalbeat/nucwatch/nucwatch062698.html>>.

⁴² Chellaney, B., 'Russia steps in to save Tarapur N-plant', *Hindustan Times* (Internet edn), 12 Oct. 2000, URL <<http://www.hindustantimes.com/nonfram/121000/detEXC01.asp/>>.

⁴³ Malhotra, J., 'Russia offers 4 more N-reactors to India', *India Express* (Internet edn), 20 Feb. 2001, URL <<http://www.indian-express.com/ie/daily/20010220/iin20044.html>>.

placed all of its nuclear activities under full-scope IAEA safeguards. This commitment was adopted in Warsaw in 1992.⁴⁴ India has many nuclear facilities that are not under full-scope safeguards.

The United States has argued that both supply of the reactors and the supplies of nuclear fuel are inconsistent with Russia's NSG commitments. Decisions reached by Russia in 1998 and any offers made in 2001 to supply reactors to India would be in conflict with the 1992 Warsaw Statement on Full Scope Safeguards.⁴⁵ Russia has argued that specific contracts to supply reactors to India, agreed in 1997 and 1998, were implementing a bilateral Memorandum of Understanding (MOU) signed with India in 1988. In the Russian view, commitments made prior to 1992 are not governed by the Warsaw Statement.

Russia does not claim that agreements on nuclear fuel are 'grandfathered' since they were reached in 1998. Before the Indian nuclear tests of 1998 the Tarapur reactor purchased nuclear fuel from China (which is not a member of the NSG). However, after the Indian tests China stopped supplying this fuel. Russia has argued that nuclear supply arrangements do not prohibit transfers made on the grounds of safety and that Tarapur should be seen as a special case. According to the Russian argument, the reactors will become unsafe if they continue to burn existing fuel. Moreover, it is argued that the non-proliferation arguments against nuclear supply are weak because India has already demonstrated its capability to manufacture nuclear weapons using resources that are not related to the Tarapur facility.⁴⁶

The safety exemption (contained in paragraph 4 of the NSG guidelines) states that transfers may be made to a non-nuclear weapon state without a safeguards agreement 'only in exceptional cases when they are deemed essential for the safe operation of existing facilities'. In these cases the nuclear supplier should 'inform and, if appropriate, consult in the event that they intend to authorize or deny such transfers'.⁴⁷

Individual participating states take national licensing decisions according to their own interpretation of their commitments under the NSG. However, in 1994 the NSG suppliers agreed on how this safety exemption should be interpreted for licensing purposes. Transfers should be authorized 'only when deemed to be essential in order to prevent or correct a radiological hazard pos-

⁴⁴ Statement on full-scope safeguards, agreed at the Meeting of Adherents to the Nuclear Suppliers Guidelines, Warsaw, 31 Mar.–3 Apr. 1992. The statement was subsequently published by the IAEA as INFCIRC/405, May 1992, URL <<http://www.iaea.org/worldatom/Documents/Infcircs/Others/inf405.shtml>>.

⁴⁵ 'Russian shipment of low enriched uranium fuel to India', Statement by Philip T. Reeker, US Department of State, 16 Feb. 2001 reproduced in *Washington File*, 16 Feb. 2001, URL <<http://usinfo.state.gov/topical/pol/arms/stories/01021601.htm>>.

⁴⁶ The arguments are laid out in Stratford, R. K., 'Starting over: building a non-proliferation regime from scratch', Paper delivered to the Non-Proliferation Symposium How to Harmonize Peaceful Uses of Nuclear Energy and Nonproliferation Policy organized by the Japan Atomic Industrial Forum, Tokyo, 7–8 Mar. 2001. Stratford is the Director of the Office of Nuclear Energy Affairs, US Department of State. The papers are archived at URL <http://www.jaif.or.jp/english/npsympo/sympo_2nd.html/>.

⁴⁷ Guidelines for Nuclear Transfers, Article 4(b). The most recent version of the guidelines have been published by the IAEA as INFCIRC/254/Rev. 4/Part 1, 15 Mar. 2000. The document is archived at URL <<http://www.iaea.org/worldatom/Documents/Infcircs/2000/infirc254r4p1a1.pdf>>.

ing a significant danger to public health and safety and which cannot be realistically met with any other means'.⁴⁸

At successive NSG meetings the Russian arguments were rejected by all the participating states except Belarus. Most representatives agreed that the Russian transfer of nuclear fuel could not reasonably be said to fall within the 1994 interpretation. One unnamed official said that the Russian action was a 'flagrant violation' of NSG agreements and that 'if the reactors are unsafe, then they shouldn't operate'.⁴⁹ In its response the US State Department noted that the transfers were part of a pattern of Russian nuclear export activity that 'raises serious questions about Russia's support for the goal of preventing nuclear proliferation'.⁵⁰ Other states apparently argued that the NSG depended on solidarity among its members for success. If one state was able to carry out commercial activities of this kind then other participating states might have to review their national positions.

In 2001 there were developments in Russia's nuclear establishment and national export control system that were of relevance to analysis of Russia's implementation of its NSG commitments.

In March 2001 President Putin removed the Minister of Atomic Energy, Yevgeniy Adamov, from his position.⁵¹ In general, Adamov had lobbied hard within the Russian Government for steps to increase nuclear exports and international industrial cooperation in the field of nuclear energy. Adamov was a strong supporter of agreements with India and Iran that were contentious both in the context of Russia's international obligations in regard to nuclear non-proliferation and in bilateral relations with the United States.

It is not clear whether the reasons for Adamov's removal were related to non-proliferation concerns. Adamov was mentioned in a report of the Anti-Corruption Commission of the Russian Parliament released just before President Putin took the decision.⁵² Moreover, it is not clear that the dismissal signals a change in policy. In April 2001 the new minister, Alexander Rumyantsev, announced that the agreement to ship nuclear fuel to India would be fulfilled.⁵³

In June 2001 the Russian Government issued a Federal Decree containing Regulations on Control over Foreign Economic Activity in Respect of Nuclear-Related Dual Use Equipment and Materials and Related Tech-

⁴⁸ Thorne, C. E., *A Guide to Nuclear Export Controls* (Proliferation Data Services: Burke, Va., 1997), pp. 1-3.

⁴⁹ Quoted in Hibbs, M., 'NSG objects again after Russia says LEU exports to India are proceeding', *Nuclear Fuel*, vol. 26 no. 3 (5 Feb. 2001).

⁵⁰ 'Russian shipment of low enriched uranium fuel to India' (note 45).

⁵¹ 'Adamov's dismissal is a good sign for nuclear nonproliferation', PIR Center, 28 Mar. 2001, reproduced at URL <<http://www.pircenter.lrg/board/article.php3?artid=639>>.

⁵² According to the report, Adamov was linked to at least 10 companies inside and outside Russia, mostly consulting and import/export companies managing aspects of nuclear trade. Employees of Minatom are forbidden to have private business interests.

⁵³ 'New nuclear minister pushes for spent nuclear fuel imports', *Russian Journal Online*, Daily News Report: Energy, 6 Apr. 2001, URL <http://www.russiajournal.com/news/tj_news.shtml?nd=578>. Rumyantsev has also made it clear that Russian nuclear cooperation with Iran will continue.

nology.⁵⁴ The regulations prohibited transfers of controlled items under four conditions: (a) for use in carrying out activities for the creation of nuclear explosive devices; (b) for use in states not possessing nuclear weapons in carrying out activities in the field of the nuclear fuel cycle not placed under IAEA safeguards; (c) in the case of the existence of an unacceptable risk of their being used for purposes indicated in a and b; and (d) when the transfer is contrary to the purpose of the non-proliferation of nuclear weapons.

IV. The Wassenaar Arrangement

The Wassenaar Arrangement is an informal arrangement in which the participating states intend to contribute to regional and international security by promoting transparency and greater responsibility with regard to transfers of conventional arms and dual-use goods and technologies, thus preventing destabilizing accumulations.

Through national policies the participating states seek to prevent transfers of agreed items from contributing to the development or enhancement of military capabilities that undermine regional and international security, and to ensure that transferred items are not diverted to support such capabilities. The arrangement mainly provides a mechanism for information exchange and does not attempt to develop common controls. However, under its initial elements the arrangement is intended 'to enhance cooperation to prevent the acquisition of armaments and sensitive dual-use items for military end-uses, if the situation in a region or the behaviour of a state is, or becomes, a cause for serious concern to the participating states'.⁵⁵

In 2001 the main issues of contention within the WA concerned disagreements among the participating states about how to enhance transparency in reporting on conventional arms transfers. This issue had two elements. First, the contents and use of information reported informally by states in papers describing national perspectives on the armament dynamic in particular regions and subregions form part of the general information exchange between participating states within the Wassenaar Arrangement. Second, the question is addressed of how to advance the more specific information exchange, which currently consists of exchanges of information every six months on deliveries of conventional arms to states that do not participate in the WA. Conventional arms have the same definition for reporting purposes as the original categories used in the UN Register of Conventional Arms.⁵⁶

During 2001 an increasing number of states submitted papers for consideration during the general information exchange. Some countries submitted mul-

⁵⁴ These regulations are available in English on the Internet site of the SIPRI Export Control Project at URL <<http://projects.sipri.se/expcon/dualuse/russiadu.htm>>.

⁵⁵ The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies: Initial Elements, Vienna, 12 July 1996, URL <<http://www.wassenaar.org/docs/docindex.html>>.

⁵⁶ The background to these issues is provided in Anthony, I., 'Multilateral weapon and technology export controls', *SIPRI Yearbook 2000* (note 6), pp. 667–84; and Anthony, I., 'Multilateral weapon and technology export controls', *SIPRI Yearbook 2001* (note 8), pp. 615–39.

multiple papers—for example, the Russian Federation submitted papers on six different regions. These national papers generated significant discussion among participating states. For example, the papers submitted by Japan and South Korea presented different conclusions about the implications for regional security of deliveries of arms to North Korea. Russia disagreed with the evaluation submitted by the United States of the implications of arms deliveries to India for regional and international security.

Disagreement about the particular content of papers notwithstanding, these exchanges indicate a positive evolution of the Wassenaar Arrangement. However, they also highlight some shortcomings in the current procedures.

The papers submitted by participating states and the discussion generated by them go some way to addressing the criticism that the WA pays too little attention to the way in which the norms established in the initial elements are implemented. The development of the general information exchange is made more difficult by two features of current reporting procedures.

First, the reporting is confined to the armament dynamic in non-participating states. This can lead to important matters being excluded from discussions within the WA. For example, at least one state submitted a paper addressing the impact of arms deliveries on regional security in the Caucasus. However, the paper could not take into account the impact of developments in the North Caucasus for the Caucasus as a whole because the North Caucasus forms part of the territory of Russia, a WA participating state.

Second, states still tend to confine their reporting to systems contained in the seven categories listed in appendix 3 of the document Initial Elements of the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies. In 2001 a small group of military experts from the main exporting countries met to discuss what kinds of equipment could be included in an expanded information exchange without any compromise to the security or commercial interests of exporters. In addition, two additional sub-categories of military items were added to the mandatory reporting of transfers/licences granted. These were armoured bridge-launching vehicles and gun-carriers specifically designed for towing artillery.⁵⁷

V. The impact of the 11 September terrorist attacks on multilateral export control

The multilateral export control regimes were not designed to address the issue of terrorist access to weapons of different kinds. However, after the terrorist attacks against the United States it has become more obvious that counteracting transnational terrorist networks requires international cooperation.⁵⁸ After 11 September 2001 all of the multilateral regimes have taken notice in

⁵⁷ Public Statement, Seventh Plenary of the Wassenaar Arrangement, Vienna, Dec. 7 2001. This statement and the revised categories for reporting purposes are both archived at URL <<http://www.wassenaar.org/>>.

⁵⁸ For more information see 'Counterterrorism and the nonproliferation regime', a special issue of *The Monitor: International Perspectives on Nonproliferation*, vol. 8, no. 1 (winter 2002).

their meetings of the need to examine how their activities could contribute to eliminating terrorism.

The risk that terrorist groups would acquire non-conventional weapons became a focus of particular attention.⁵⁹ In testimony before the US Senate the Director of Central Intelligence noted that

as early as 1998, Bin Ladin publicly declared that acquiring unconventional weapons was 'a religious duty' . . . we know that al-Qa'ida was working to acquire some of the most dangerous chemical agents and toxins. Documents recovered from al-Qa'ida facilities in Afghanistan show that Bin Ladin was pursuing a sophisticated biological weapons research program. We also believe that Bin Ladin was seeking to acquire or develop a nuclear device. Al-Qa'ida may be pursuing a radioactive dispersal device—what some call a 'dirty bomb'.⁶⁰

Issues that have been under discussion in export control regimes in recent years are relevant to combating terrorist groups.⁶¹ The implementation of end-use or 'catch-all' controls against groups and individuals identified as terrorists by the United Nations may be one feasible approach.

The more widespread use of end-use controls has increased the need for information sharing among regime members. In response to the attacks of 11 September the Australia Group is currently discussing enhanced information sharing within the group and expanding its scope to cover dual-use equipment and technology. The Wassenaar Arrangement decided to amend its initial elements for the first time to include the commitment that participating states 'will continue to prevent the acquisition of conventional arms and dual-use goods and technologies by terrorist groups and organisations, as well as by individual terrorists'.⁶²

Export control regimes lack a common risk assessment that can be the basis for national decisions about whether to authorize a given export and the conditions to attach to an authorization. Measures to help identify the actual end-user of controlled items and to reduce the risk of unauthorized re-export of controlled items are likely to remain a focal point of discussion. Since the dissolution of the Coordinating Committee on Multilateral Export Controls (COCOM) arrangements states that participate in regimes have emphasized national decision making and insist that regimes do not target any particular state or group of states. If risk assessment procedures suggested that programmes of concern are in fact concentrated in a small number of states this approach might be called into question.

⁵⁹ The impact of the distribution of anthrax using the postal service in Sep. 2001 is discussed in chapter 12 in this volume.

⁶⁰ *Worldwide Threat: Converging Dangers in a Post 9/11 World*, Testimony of Director of Central Intelligence George J. Tenet before the Senate Select Committee on Intelligence Feb. 6 2002.

⁶¹ For further discussion see Anthony, I., 'Combating terrorism: the role of regimes', *The Monitor: International Perspectives on Nonproliferation*, vol. 8, no. 1 (winter 2002), pp. 7–11.

⁶² The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, Initial Elements as adopted by the Plenary of 11–12 July 1996 and amended by the Plenary of 6–7 Dec. 2001, URL <<http://www.wassenaar.org/docs/docindex.html>>.

Regimes are also examining the conditions under which simplified procedures might be applied between states that have a high degree of confidence regarding compliance with arms control agreements and the effectiveness of their export control systems. The realization that groups planning terrorist acts may already be located within the territories of regime participants is causing a reassessment of the wisdom of simplified procedures.

VI. Conclusions

A significant number of states have developed common rules and habits of cooperation in the framework of the multilateral export control regimes. Nevertheless, there has been a growing sense that the momentum established within the regimes in the first part of the 1990s was not maintained.

Prior to the attacks of 11 September 2001, however, the experience of the regimes was that there remain significant disagreements between participating states over important issues. Disagreements often stem from the fact that licensing decisions are based on national interpretations of regime rules. These are in turn steered by the interests of participating states rather than a common norm or a common perception of the risks posed by particular transfers.

After 11 September certain decisions that were difficult to take in the framework of the regimes may have become possible.

Particular attention is being paid in this regard to the following issues: the development of procedures for sharing information related to licensing and enforcement; the development of a more harmonized approach to risk assessment and the identification of programmes of concern; the development of common approaches to end-user controls in countries where programmes of concern are located; and the question of how to apply controls to new types of commercial practices in a changing market.