

9. Multilateral security-related export controls

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I. Introduction

Developments in 1997 underlined that multilateral export control regimes can play an important role in creating the conditions for effective approaches to non-proliferation. However, events also demonstrated that in some cases where the possibility of weapon proliferation is creating security concerns—in particular in the Middle East—the triangular relationship between China, Russia and the United States is the main focus of political activity.¹

In bilateral discussions with Russia, the USA raised the issue of alleged transfers from Russia to Iran that are inconsistent with the rules accepted by Russia in the Missile Technology Control Regime (MTCR). This has provoked the question of what impact participation in the MTCR has had on Russia's national export control policies and procedures.

In bilateral discussions with China, the USA criticized China's transfers of nuclear and chemical materials and technologies to Iran as well as its transfers of nuclear and missile-related materials and technologies to Pakistan. Although until October 1997 China was not a member of any of the multilateral security-related export control regimes, the USA considered these actions to be inconsistent with China's unilateral declaration of support for non-proliferation and the bilateral undertakings between China and the USA.

In 1997 changes occurred in the membership of two of the multilateral security-related export control regimes discussed in this chapter: the MTCR and the Zangger Committee. Turkey participated in the 1997 MTCR plenary meeting, bringing the membership to 29 states. China, South Korea and Ukraine joined the Zangger Committee, bringing its membership to 33 states.

In 1997 there were changes to the common control lists developed in the framework of the MTCR, Nuclear Suppliers Group (NSG) and the Wassenaar Arrangement.

Sections II, III, V and VI address recent developments in five multilateral security-related export control regimes. The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technolo-

¹ For background information on the export control regimes, see Anthony, I. *et al.*, 'Multilateral weapon-related export control measures', *SIPRI Yearbook 1995: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1995), pp. 597-653; Anthony, I. and Stock, T., 'Multilateral military-related export control measures', *SIPRI Yearbook 1996: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1996), pp. 537-51; and Anthony, I., Eckstein, S. and Zanders, J. P., 'Multilateral military-related export control measures', *SIPRI Yearbook 1997: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1997), pp. 345-63.

Table 9.1. Membership of multilateral military-related export control regimes, as of 1 January 1998

State	Zangger Committee ^a	NSG ^b	Australia Group ^a	MTCR ^c	EU dual-use	Wassenaar Arrangement
	1974		1978		1985	
Argentina	X		X		n.a.	X
Australia	X	X	X		n.a.	X
Austria	X	X	X	X	X	X
Belgium	X	X	X	X	X	X
Brazil	X	X		X	n.a.	
Bulgaria	X	X	X		n.a.	X
Canada	X	X	X		n.a.	X
China	X ^d				n.a.	
Czech Republic	X	X	X		n.a.	X
Denmark	X	X	X	X	X	X
Finland	X	X	X	X	X	X
France	X	X	X	X	X	X
Germany	X	X	X	X	X	X
Greece	X	X	X	X	n.a.	X
Hungary	X	X	X	X	n.a.	
Iceland		X	X	X	X	X
Ireland	X	X	X	X	X	X
Italy	X	X	X	X	n.a.	X
Japan	X	X	X	X	n.a.	X
Korea, South	X ^d	X	X	X	X	X
Luxembourg	X	X	X	X	X	X
Netherlands	X	X	X	X	n.a.	X
New Zealand	X	X	X	X	n.a.	X
Norway	X	X	X	X	n.a.	X
Poland	X	X	X	X	X	X
Portugal	X	X	X	X	n.a.	X
Romania	X	X	X	X	n.a.	X
Russia	X	X	X	X	n.a.	X
Slovakia	X	X	X	X	n.a.	
South Africa	X	X	X	X	X	X
Spain	X	X	X	X	X	X
Sweden	X	X	X	X	n.a.	X
Switzerland	X	X	X	X ^d	n.a.	X
Turkey	X	X	X	X	X	X
UK	X ^d	X	X	X	n.a.	X
Ukraine	X	X	X	X	n.a.	X
USA	X	X	X	X	n.a.	X
Total	33	34	30	29	15	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.

n.a. = not applicable
^a The European Commission is represented in this regime as an observer.
^b The Nuclear Suppliers Group. The European Commission is represented in this regime as an observer.
^c The Missile Technology Control Regime.
^d This state became a member of the regime in 1997.

gies is discussed in section II as is a new agreement reached in 1997 in the framework of the Organisation for Economic Co-operation and Development (OECD) which is related to international transfers of computer software used to encrypt electronic messages. Section III deals with two nuclear export control regimes, the Zangger Committee and the NSG.

The Australia Group (AG) is an informal arrangement in which like-minded states discuss issues related to chemical and biological weapon (CBW) proliferation. In 1997 the entry into force of the 1993 Chemical Weapons Convention (CWC) added importance to the question of whether or not the activities of the group (all of whose members have signed and ratified the CWC) are consistent with the commitments of states parties under the convention.² This issue and the recent activities of the AG are discussed in section IV.

The MTCR and the European Union (EU) system for dual-use export control are dealt with in sections V and VI, respectively. Table 9.1 lists the members of these regimes.

II. The Wassenaar Arrangement

In 1996 the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies was established by 33 states. No new states participated in 1997.³ The Wassenaar Arrangement seeks 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. The Wassenaar Arrangement is itself not a decision authority, and agreements are implemented through national export and import control mechanisms. Participating states seek to ensure that: (a) transfers of items described in equipment and technology annexes (that are agreed by consensus) do not contribute to the development or enhancement of military capabilities which undermine security and stability; and (b) these transfers are not diverted to support such capabilities.

The development of the Wassenaar Arrangement has been a slow process of evolution, reflecting the fact that there is less agreement among governments about norms and principles that should apply to transfers of conventional arms than in the cases of nuclear, biological and chemical (NBC) weapons. In part, this also reflects the fact that at the end of 1997 the Wassenaar Arrangement had not yet agreed internal rules and procedures. For example, no decision had been reached on appointing a head of the secretariat.

In 1997 the participating states agreed to conduct a study on criteria for assessing destabilizing weapon accumulations. This study may contribute to a modification of the elements guiding the activities of the Wassenaar Arrangement.

² The Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction is reproduced in *SIPRI Yearbook 1993: World Armaments and Disarmament* (Oxford University Press: Oxford, 1993), pp. 735-56; and at the SIPRI CBW Project Internet URL <http://www.sipri.se/docs/cw-cwc-mainpage.html>.
³ The tasks and organization of the Wassenaar Arrangement are described in Anthony, Eckstein and Zanders (note 1), pp. 345-48.

ment—a process envisaged when it began its work.⁴ A review of the scope of conventional arms to be covered by the regime is part of this study and may lead to voluntary notification of information beyond the categories currently used (i.e., the seven categories of arms identified in the United Nations Register of Conventional Arms).⁵ The participating states will also make a wider assessment of the Wassenaar Arrangement in 1999.

These states also made clear that the Wassenaar Arrangement is not the only arrangement or organization dealing with issues of stability and security arising out of international arms transfers. The Wassenaar Arrangement has encouraged other efforts and established contact with several initiatives, including the EU Programme for Preventing and Combating Illicit Trafficking in Conventional Arms and regional initiatives taken by states in West Africa and by the Organization of American States.

Controls on encryption technology

In March 1997 the OECD Council issued a set of recommendations to its members related to national cryptography policies.⁶ The background to the recommendations was the recognition that the rapid development of electronic communications is likely to have an important impact on economic development and world trade provided that users are confident that the information they exchange is secure (i.e., it cannot be modified by an unauthorized person) and confidential (i.e., the contents cannot be read or used by an unauthorized person). Without these assurances the full potential of new technologies might not be realized. Cryptography was recognized to have an important role in creating the necessary assurance for users. At the same time, it was feared that unrestricted access to cryptography might have negative consequences for national and international security. In the 1980s a group of concerned states began to discuss the issue of a common approach to encryption policy. In 1995 these discussions were transferred to the OECD, which hosted a meeting at which member countries could explain and compare their national policies and discuss possible changes.⁷

Until the 1980s the issue of cryptography was of relevance almost exclusively to the military, police and security services—which had a virtual

⁴ The Initial Elements of the Wassenaar Arrangement included an agreement that 'work on further guidelines and procedures will continue expeditiously and taking into account experience acquired'. This document is available at the SIPRI Internet site at URL <http://www.sipri.se/projects/armstrade/wass_initiallements.html>.

⁵ Public Statement by the participating states in the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, 10 Dec. 1997. This document is available at the SIPRI Internet site at URL <http://www.sipri.se/projects/armstrade/wass_press97.html>. See also chapter 8 in this volume.

⁶ OECD, 'Recommendation of the Council concerning guidelines for cryptography policy', 27 Mar. 1997, available at URL <http://www.oecd.org/dst/icc/crpto_c.html>, version current on 24 Feb. 1998. The OECD defines cryptography as the transformation of data in order to 'hide its information content, establish its authenticity, prevent its undetected modification, prevent its repudiation and/or prevent its unauthorized use'.

⁷ Kamata, H. and Peters, T., 'A consensus on cryptography', *OECD Observer*, Aug/Sep. 1997, pp. 13–15.

monopoly on encrypted electronic information distribution. Export and import controls were one way this monopoly was maintained. States which had the capacity to produce cryptographic technology made it subject to national export controls, and this technology was subject to the Coordinating Committee on Multilateral Export Controls (COCOM) embargo. In some cases states operated import controls or their equivalent—for example, by prohibiting the use of foreign encryption technology. With the political changes and developments in technology that occurred in the 1980s and 1990s the question was raised whether maintaining existing controls was feasible or desirable.

In the 1980s wide-area networks crossing national borders became more common in industry. The development of the Internet accelerated this process with the growing use of public telecommunications networks for data communication. There was increased commercial demand for message encryption, and it became possible to download software that included encryption technology from servers located in other countries via the Internet.

Under these conditions it became an open question whether export controls could play any role in managing international communications. There was pressure in several countries—notably in the USA—for a relaxation or lifting of export controls on encryption technology.⁸ It was argued that if the USA maintained national export controls on a wider range of technologies than its commercial competitors, or if US national implementation was more restrictive, US companies might lose commercial advantages in what was likely to become an increasingly important market for communications software.

There were counter-arguments put forward in the United States against removing export controls, largely based on security concerns of different kinds. First, companies would no longer be obliged to keep customer records and report information in a systematic way to the government licensing authorities. This would reduce the level of knowledge about end-use and end-users of encryption technology. Second, unrestricted access to encryption technology might make it easier for hostile forces to penetrate the information systems of the exporting country. It is possible that for cost reasons a growing number of military and security forces will use commercial encryption software as an important element of their internal and external communications. Third, secure communications would give military advantages to potentially hostile foreign powers. Fourth, access to advanced encryption technology

⁸ Until Dec. 1996 encryption technology was controlled by both the State Department (which has responsibility for licensing exports under the Arms Export Control Act) and the Commerce Department. On 30 Dec. 1996 the USA published new regulations that transferred responsibility for licensing exports of commercial encryption products to the Commerce Department (eliminating the need for companies to submit 2 sets of applications). 'Reinisch of Commerce on export controls, sanctions', *Washington File* (United States Information Service, US Embassy, Stockholm, 8 July 1997). The issue was raised in the context of revising the 1979 Export Administration Act (EAA), which provides the legal basis for licensing US exports of dual-use technologies. The EAA expired in 1994 and has not been renewed by Congress. Its controls remain in force because successive presidents have invoked the International Emergency Economic Powers Act (which gives the president broad authority to regulate financial and commercial transactions with foreign countries in national emergencies). Separate legislation related specifically to encryption was considered by 5 different congressional committees in 1997, but no text was agreed.

would be an advantage to criminal and terrorist groups in that surveillance by police and security forces would become more difficult.

These factors led to the conclusion that unrestricted access to advanced encryption technology was not desirable while traditional forms of export control were unfeasible. As a result, an alternative form of control was sought through harmonization of national objectives at the intergovernmental level.

The OECD created a working group of experts and officials from member states, and in 1996 the OECD Committee for Information, Computer and Communications Policy completed a set of guidelines for consideration by the OECD Council. The guidelines were intended to promote, among other things, the use of cryptography without unduly jeopardizing public safety, law enforcement and national security; to raise the awareness of the need for compatible cryptography policies and laws among states operating in the global information network; and to foster cooperation between the public and private sectors in developing and implementing national and international policies.

The guidelines incorporated a set of eight principles which the OECD member states were to implement through national measures and cooperation in other international forums.⁹ The OECD also recognized that exports of encryption technology were already controlled by the members of the European Union (in its dual-use export control system) and the Wassenaar Arrangement (in its list of dual-use goods and technologies). Further discussions about the impact on export controls of national implementation of the OECD principles are more likely to take place in the framework of these bodies.¹⁰ The eight agreed OECD principles were:

1. Cryptographic methods should be trustworthy in order to generate confidence in the use of information and communications systems.
2. Users should have a right to choose any cryptographic method, subject to applicable law.
3. Cryptographic methods should be developed in response to the needs, demands and responsibilities of individuals, businesses and governments.
4. Technical standards, criteria and protocols for cryptographic methods should be developed and promulgated at the national and international level.
5. The fundamental rights of individuals to privacy, including secrecy of communications and protection of personal data, should be respected in national cryptography policies and in the implementation and use of cryptographic methods.
6. National cryptography policies may allow lawful access to plaintext, or cryptographic keys, of encrypted data. These policies must respect the other principles contained in the guidelines to the greatest extent possible.

⁹ Although the OECD guidelines argue the need for national measures, in Oct. 1997 the European Commission published a draft policy framework for security on open communications networks. The Commission argued that divergent legal and technical approaches in EU member states could, if national regulations were preferred, have a significant impact on the EU single market. Moreover, national approaches would have to be consistent with existing Community law. Therefore, the Commission announced its intention to propose EU-wide legislation in 1998. European Commission, 'European Commission adopts policy framework for more security on the Internet', Press Release no. IP/97/862, Brussels, 8 Oct. 1997.

¹⁰ In addition, the European Commission has been working on a draft regulation on a common legal basis for EU information security.

7. Whether established by contract or legislation, the liability of individuals and entities that offer cryptographic services or hold or access cryptographic keys should be clearly stated.

8. Governments should co-operate to co-ordinate cryptography policies. As part of this effort, governments should remove, or avoid creating in the name of cryptography policy, unjustified obstacles to trade.¹¹

The discussion that led to these principles underlined some of the difficulties of developing regulations to address problems that could not easily be allocated exclusively to either the military or the civilian domain, or to either the government or the non-government domain. For example, the idea of a single technical standard defined by governments (which might have been a basis for controls) either through regulation or by using their collective 'buying power' in a coordinated way was not accepted, and there was a preference for promoting market-based technology development. The guidelines recognized that governments have 'separable and distinct responsibilities for the protection of information which requires security in the national interest' and stated that the guidelines were not intended to be applied in such cases. However, it became clear that governments had different perceptions of their interests and responsibilities with regard to issues such as the right of individuals and companies to privacy. Consensus could not be reached on the main specific proposal being discussed—a control based on a 'key escrow' or 'Trusted Third Party' approach.

Trusted Third Parties

The most widely used form of encryption is to place an algorithm in a transmitted message which makes the contents unintelligible without access to a valid decryption 'key'. One proposed approach to regulation was to license a non-governmental agent—a Trusted Third Party (TTP)—to maintain a register of these keys to which authorized government agencies would have access under certain conditions.¹² In this way a balance might be struck between allowing individuals and companies secure and confidential communications without disallowing interception and monitoring by government where necessary for security reasons.

This approach (which was emerging as the preferred basis for national control systems in several countries, including all the 'P8' members) was not acceptable to all the OECD countries.¹³ Given the international nature of modern communications traffic, the TTPs would have to hold both national and

¹¹ Recommendation of the Council concerning guidelines for cryptography policy' (note 6).

¹² UK, Department of Trade and Industry, Commercial IT Security Unit, 'Government sets out proposals for encryption on public telecommunications networks', Press Release no. P/96/430, London, 10 June 1996.

¹³ The P8 (Political 8) countries are the Group of 7 (G7)—Canada, France, Germany, Italy, Japan, the UK and the USA—plus Russia. In the statement at the end of the 1997 Summit of the Eight in Denver, Colo., the 8 heads of government and heads of state invited all states 'to promote the use of encryption which may allow, consistent with OECD guidelines, lawful government access to combat terrorism'. US Department of State, 'Communiqué: the Denver Summit of the Eight', 22 June 1997, URL <http://www.state.gov/www/issues/economic/summit/communiqué97.html>, version current on 9 Mar. 1998.

international keys. Multiplying the number of bodies holding these keys could make it easier for unauthorized users to gain access to encrypted information and thereby compromise information security systems. Moreover, national legislation would define the conditions under which individual government users could gain access to keys from a domestic TTP. These keys could then be used to penetrate foreign information systems.

In the absence of a harmonized approach to national encryption policies it is unlikely that international transfers of encryption technologies will be completely unregulated in spite of the commercial and technological changes which have occurred.

III. Nuclear export controls

Nuclear export controls are discussed in two separate multilateral arrangements: the Zangger Committee and the Nuclear Suppliers Group.

The Zangger Committee

The Zangger Committee is an informal group of 33 states which meets twice a year with two main objectives: (a) to reach a common understanding of what constitutes nuclear material and equipment or material especially designed or prepared for the processing, use or production of special fissionable material,¹⁴ and (b) to discuss procedures for exporting nuclear materials and some types of equipment in the light of the commitment of states pursuant to Article III.2 of the NPT [1968 Non-Proliferation Treaty] so that parties to the treaty can feel confident that they are implementing their commitments effectively.¹⁵

The main task of the Zangger Committee has been to identify the items that fall into the category nuclear material and equipment or material specially designed or prepared for the processing, use or production of special fissionable material (the Trigger List, so called because any export of a listed item to a non-nuclear weapon state triggers the need for IAEA safeguards).¹⁶

The new model protocol on nuclear safeguards

Approximately 70 countries have nuclear reactors or major facilities of different kinds containing nuclear materials on their territories. Many other coun-

¹⁴ The term means plutonium-239, uranium-233, uranium enriched in the isotopes 235 or 233, any material containing one or more of the foregoing, and such other fissionable material as the IAEA Board of Governors shall from time to time determine, but the term does not include source material. Oak Ridge National Laboratory, 'Special fissionable material', URL <http://www.ornl.gov/nisk/_section1.html>, version current on 20 Feb. 1998.

¹⁵ Histories of the Zangger Committee include URL <<http://www.iaea.or.at/worldatom/infocircs/inf209-1.html>>, version current on 23 Feb. 1998; and Schmidt, F., 'The Zangger Committee: its history and future role', *Nonproliferation Review*, fall 1994, pp. 39-44. See also Anthony *et al.* (note 1), p. 601; and Anthony and Stock (note 1), p. 546.

¹⁶ The 'Trigger List' is available as an IAEA Information Circular: the most recent is INFCIRC/209/Rev.1, Nov. 1974. URL <<http://www.iaea.or.at/worldatom/infocircs/inf209-1.html>>, version current on 21 Apr. 1998.

tries possess smaller nuclear facilities. While the safety of nuclear installations and the physical security of nuclear material are the primary responsibility of states, the International Atomic Energy Agency (IAEA) has developed a set of activities—known as safeguards—by which it seeks to verify that a state is not using nuclear material or equipment to develop or produce nuclear weapons. While these IAEA safeguards are not directly a part of the activities of the Zangger Committee or the Nuclear Suppliers Group, as noted above, they do have an impact on how the regimes function.

The specific safeguards that should be required prior to the transfer of Trigger List items have never been harmonized. This issue re-emerged in 1997 with the development of enhanced safeguards (the so-called Programme 93+2 safeguards) by the IAEA.¹⁷

According to Zangger Committee Chairman Fritz Schmidt the effect of Article III of the NPT should be to bring all non-nuclear weapon states under the IAEA full-scope safeguards regime whether or not they are parties to the NPT. Under Article III.2 of the NPT all parties would then insist that non-parties should be brought under full-scope safeguards as a condition of supply of Trigger List items.¹⁸ There has not been a decision by the Zangger Committee members to make full-scope safeguards a condition of supplying Trigger List items, although this is a condition which has been adopted by all members of the Nuclear Suppliers Group. As discussed below, China has become a member of the Zangger Committee but not of the NSG. China has not given a specific undertaking that full-scope safeguards will be a condition of supplying Trigger List items.

In May 1997 the Board of Governors of the IAEA adopted an additional Model Protocol supplementing existing safeguards agreements. The new protocol (the Programme 93+2 safeguards) is intended to address a perceived weakness in the previous system. Whereas the previous safeguards were designed to check that statements by IAEA members were accurate, they did not check whether the statements offered a complete picture of nuclear activities. Evidence that North Korea had produced a greater quantity of plutonium than it had declared to the IAEA and the discovery that Iraq had a secret nuclear weapon programme led to a review of the safeguards system.

The new protocol has three types of provision: (a) measures to strengthen IAEA access to information; (b) increased physical access to sites, including agreed access beyond nuclear sites on a case-by-case basis; and (c) a rationalization of the safeguards system through closer cooperation between the

¹⁷ The IAEA's Committee on Strengthening the Effectiveness and Improving the Efficiency of the Safeguards System agreed on 21 Apr. 1997 on the text of the Model Protocol to implement Part 2 of the measures of the IAEA's Programme 93+2. The Board of Governors approved the protocol on 15 May, and it was presented publicly on 16 May 1997. *PPNW* [Programme for Promoting Nuclear Non-Proliferation] *Newsbrief*, no. 38 (2nd quarter 1997), p. 7.

¹⁸ 'Full-scope safeguards' are those described in the IAEA Information Circular Model Protocol Additional to the Agreement(s) Between State(s) and the International Atomic Energy Agency for the Application of Safeguards, INFCIRC/540, Sep. 1997.

IAEA, its member states and international organizations, such as the European Atomic Energy Community (known as the EAEC or Euratom).¹⁹

One element of the new safeguards system will be an enhanced information system managed by the IAEA based on expanded declarations related to nuclear transfers. These declarations will include (among many things) information from exporters and importers related to specific transfers. The IAEA can combine these declarations with other information in a 'country profile' which should give detailed insight into the activities which may be related to the possible existence of a nuclear weapon programme in that country. If these safeguards are implemented successfully it is hoped that they will reduce the probability that any country could pursue a clandestine nuclear weapon programme. At the September 1997 meeting of the IAEA Board of Governors, six states—Armenia, Australia, Georgia, the Philippines, Poland and Uruguay—signed an Additional Protocol. Armenia and Georgia announced their intention to apply the Additional Protocol provisionally pending parliamentary ratification. Before the end of 1997 Lithuania also accepted the Additional Protocol.²⁰

China and the Zanger Committee

In 1997 China stated its intention to apply for membership of the Zanger Committee at the same time as it announced changes to its national nuclear export controls.²¹ China participated in the October 1997 meeting of the Zanger Committee²² and therefore is included as a member in table 9.1.

For many years after the NPT entered into force China (itself a nuclear weapon state) remained outside the international nuclear non-proliferation regime. China often drew attention to the potential negative consequences of efforts to restrict international technology transfers in pursuit of non-proliferation objectives. In the 1990s China became persuaded that it had a national interest in cooperative approaches to non-proliferation, and in 1992 it acceded to the NPT. Subsequently, the question has been raised how China interprets its obligations under Article III.2 of the NPT in the light of continued Sino-Pakistani cooperation in the nuclear field.

In 1997 the desire to make a public statement on non-proliferation issues at the Chinese-US summit meeting in Washington in October 1997 spurred changes in China's national policy. Non-proliferation issues were repeatedly

raised by the US representative in bilateral discussions with the USA's Chinese counterparts throughout the year.²³

In September 1997 the Chinese Foreign Ministry issued a statement and a Decree of the State Council on Regulations on the Control of Nuclear Exports. The statement outlined three principles that guide Chinese nuclear export policy: (a) nuclear technology which is transferred may only be used for peaceful purposes; (b) the use of the technology should be subject to IAEA safeguards; and (c) the technology may not be transferred to a third country without the prior written permission of the China Atomic Energy Authority. The statement by the Foreign Ministry repeated and underlined previous statements by China that 'no assistance whatsoever' may be provided to countries or regions not subject to IAEA supervision.²⁴

Ideally, the USA would like China to join all the multilateral regimes addressing weapon proliferation.²⁵ However, the issue of nuclear export controls played a particularly important part in Chinese-US relations in 1997. From a political perspective, the USA has been particularly concerned about China's nuclear cooperation with Pakistan, which is not a party to the NPT, and Iran, which is a party to the treaty.

Generation of nuclear power will form part of China's future energy strategy and international cooperation is likely to play an important role in developing China's nuclear industry. The USA has made it clear that China's commitment to nuclear weapon non-proliferation would need to be accompanied by effective national nuclear export controls before cooperation with US industry could be developed.²⁶

The US Department of Commerce noted in May 1997 that the most difficult problem in deciding on specific applications for the export of dual-use items to China was 'determining the legitimacy of the end-user and assuring that the ultimate consignee uses the item in the approved end-use. This approach is not easily monitored and data is difficult to gather'.²⁷ This point was emphasized by a State Department spokesman who explained that 'China is a big country.

²³ Interview with Deputy Assistant Secretary of State Robert Einhorn, United States Information Service, Washington File, 7 Jan. 1998, URL <http://www.usia.gov/current/news/topic/intel/98010703.ppt.html/?products/washinfo>, version current on 12 Jan. 1998.

²⁴ Central People's Radio Network (Beijing), 15 Sep. 1997, in 'China: Spokesman on 3 principles of nuclear export regulations', Foreign Broadcast Information Service, *Daily Report-China (FBIS-CHI)*, FBIS-CHI-97-258, 16 Sep. 1997, 'The Regulations of the People's Republic of China on Control of Nuclear Exports can be viewed at URL <http://www.sipri.se/projects/armstrade/natexpcn/country_matrix.html>.

²⁵ Statement by James B. Steinberg, Deputy Assistant to the President for National Security Affairs, at the Carnegie Endowment for International Peace, 9 June 1997, Steinberg said, 'Ultimately, the effectiveness of these multilateral efforts depends on the full participation of all potential suppliers. In particular, Russia and China are key to meeting the supply challenge'.

²⁶ China and the USA concluded a Peaceful Nuclear Cooperation Agreement in 1985 which was never activated. As a consequence of developments in 1997 President Bill Clinton was considering certifying to Congress that China was cooperating in nuclear non-proliferation. This certification is required under the 1978 US Nuclear Nonproliferation Act before industrial cooperation can be developed. *International Herald Tribune*, 19 Sep. 1997, p. 1.

²⁷ Letter from William M. Daley, Secretary of Commerce, to the United States General Accounting Office, 12 May 1997, reproduced in General Accounting Office, *Hong Kong's Reversion to China: Effective Monitoring Critical to Assess US Nonproliferation Risks*, GAO/NSIAD-97-149, May 1997, pp. 35-36.

¹⁹ Keynote Address of Hans Blix, Director-General of the IAEA, at the NSG Seminar on the Role of Export Controls in Nuclear Non-Proliferation, Vienna, 7 Oct. 1997.

²⁰ Hooper, R., 'The system of strengthened safeguards', *IAEA Bulletin* (Internet edn), vol. 39, no. 4 (Dec. 1997), URL <http://www.iaea.or.at/worldatom/inresource/bulletin/bull394/hooper.html>, version current on 3 Mar. 1998.

²¹ *Australia-United States Ministerial Consultations 1997 Joint Communiqué*, 9 Oct. 1997, at the US State Department gopher, URL <gopher://198.80.36.82:70083350581-53381379-range/archives/1997/pdq97>, version current on 23 Feb. 1998.

²² Fitchett, J., 'A new China embracing nuclear nonproliferation', *International Herald Tribune*, 11 Dec. 1997, pp. 1, 4.

There are many companies that trade. In order to maintain the credibility of China's international commitments, there has to be a nationwide export control system that will assure China's partners that commitments are being met. . . . [T]he construction of that system and the tightening of that system [are] going to be very important to the credibility of China.²⁸

A second export control issue related to China that received attention in 1997 was the implications of the change in the status of Hong Kong. On 1 July 1997 Hong Kong became a Special Administrative Region under the jurisdiction of China. Under the principle of 'one country-two systems' Hong Kong retained a great deal of autonomy in regulating its affairs, including its trade policy. Although prior to July 1997 some specific transaction types were referred to the United Kingdom for licensing (mostly those to proscribed destinations), Hong Kong processed the majority of licences locally.²⁹ After July 1997 the intention of Hong Kong authorities was to continue operating an autonomous export licensing system under which Hong Kong authorities would continue to require licences for exports of controlled items. Transfers to other parts of China would also require licences.³⁰

Under these conditions other countries had to decide whether to change their approach to exports to Hong Kong. Different countries reached different decisions.

Comparing the licensing arrangements in place for Hong Kong and China (across the full range of controlled goods, not only nuclear items), the US General Accounting Office (GAO) concluded that: 'export control rules applied to China are more stringent: more categories of exports require licenses, and the US government has refused to export certain items owing to concerns over proposed end users and end uses'.³¹ The UK and the USA both intend to continue treating China and Hong Kong differently for licensing purposes by maintaining the existing simplified procedures for Hong Kong. Other countries conducting large volumes of trade with Hong Kong, for example Australia and Japan, intend to treat China and Hong Kong identically by requiring licences for all exports of controlled items to both destinations.

The Nuclear Suppliers Group

The Nuclear Suppliers Group is an informal group of 34 nuclear supplier countries which 'seeks to contribute to the non-proliferation of nuclear weapons through the implementation of two sets of guidelines for nuclear exports and nuclear related exports'.³² The guidelines are adopted by consen-

²⁸ Press Briefing following bilateral meeting between US Secretary of State Madeleine Albright and Vice Premier Qian Qichen of China, Washington, DC, 28 Apr. 1997.

²⁹ The Hong Kong licensing system is described in Cupitt, R. T., 'Nonproliferation export controls in East Asia', *Journal of East Asian Affairs*, vol. 11, no. 2 (1997).

³⁰ Xinhua (Beijing), 6 Oct. 1997, in 'China: Hong Kong, US to cooperate on strategic trade controls', FBIS-CHI-97-279, 7 Oct. 1997.

³¹ General Accounting Office (note 27).

³² In Aug. 1997 the NSG sent a letter to the IAEA Director-General which was intended to clarify the origin, roles and activities of the group. The letter and associated information were reproduced in the IAEA as Communication Received from the Permanent Mission of Australia on Behalf of the Member

states and are implemented through national export control systems. The guidelines for nuclear transfers and nuclear-related dual-use transfers are both published as information circulars by the IAEA.³³

The Nuclear Suppliers Group applies its guidelines to two common lists which are published by the IAEA as annexes to its information circulars. At its meeting in Canada in May 1997 the NSG indicated that it had clarified some elements of the Trigger List with respect to nuclear reactors, fuel-fabrication facilities and non-nuclear material as well as adopting additional measures to facilitate the sharing of information among member states.³⁴

The activities of the NSG are of three kinds. First, the regular work of the NSG consists of plenary and working group meetings. Working groups are established to address a specific issue of interest or concern. Second, the NSG has two standing bodies which report to the plenary. Third, the plenary meeting can decide to initiate ad hoc activities.³⁵

The plenary meeting typically focuses on reports by the working groups and the NSG Chair (which rotates among the members). The standing bodies are the Dual-Use Consultations (in which NSG members review the guidelines on nuclear-related dual-use transfers) and a Joint Information Exchange. Consultation and information exchange procedures were outlined in a Memorandum of Understanding (MOU) adopted in 1992, when the original set of guidelines related to nuclear-related dual-use transfers was finalized. Until 1997 this MOU was a restricted document. However, in the 1997 Ottawa plenary meeting NSG members decided to publish it.³⁶

The membership of the NSG continues to expand. In 1997 the decision was taken to admit Latvia, which applied for membership of the NSG in January 1996. Latvia meets all the NSG membership criteria having signed the NPT in 1992, signed (in 1993) and ratified (in 1996) the CWC, and ratified the 1972 Biological and Toxin Weapons Convention (BTWC) in 1997. In April 1997 Latvia deposited an instrument of acceptance of the Statute of the IAEA and became a member of the organization (although a safeguards agreement had been concluded in 1993). Latvia was obliged to create an effective national export control system. This system was completed and operating in 1997.³⁷

States of the Nuclear Suppliers Group, INF/CIRC/539, 16 Sep. 1997. It can be viewed at the IAEA homepage URL <<http://www.iaea.org>> or at URL <http://www.sipri.se/projects/armstrade/NSG_documents.html>.

³³ The most recent are Communication Received from Certain Member States Regarding the Guidelines for the Export of Nuclear Material, Equipment and Technology; Nuclear Transfers, INF/CIRC/254/Rev.3/Part 1, 16 Sep. 1997; and Communication Received from Certain Member States Regarding the Guidelines for the Export of Nuclear Material, Equipment and Technology; Nuclear-related Dual-use Transfers, INF/CIRC/254/Rev.2/Part 2/Mod.1, 19 Mar. 1996. NSG members have all adopted full-scope safeguards as a condition of supply for nuclear transfers but not for transfers of nuclear-related, dual-use items.

³⁴ Press Statement from the Nuclear Suppliers Group Plenary Meeting, Ottawa, Canada, 8-9 May 1997.

³⁵ The history and past activities of the NSG are described in Anthony, Eckstein and Zanders (note 1), pp. 348-51.

³⁶ See appendix 9A in this volume.

³⁷ The system is described in the document Export Control System in the Republic of Latvia available at URL <http://www.sipri.se/projects/armstrade/latviaexport/control_system_matrix.html>.

At present the NSG member states are implementing a programme of outreach and transparency activities aimed at increasing the level of knowledge about the group among non-member states.³⁸

IV. Export control regimes for chemical and biological weapons and technologies

Since 1985 a steadily increasing number of countries have coordinated their national export controls on chemical and biological weapons in the Australia Group. The AG lists of controlled items have meanwhile been incorporated in other export control regimes. CBW are also prohibited by multilateral disarmament treaties which require their parties not to assist any other state, group or individual in acquiring such weaponry. The Chemical Weapons Convention includes export control mechanisms and requires states to report the transfer of certain chemicals listed in the convention. The Biological and Toxin Weapons Convention, however, lacks these instruments.³⁹ Since both conventions permit the transfer of CBW-related dual-use technologies and commodities for non-prohibited purposes, some developing countries have expressed grave concerns about the continued functioning of supplementary export control mechanisms outside the BTWC and CWC. The controversy hampers and may even threaten the further development of the disarmament treaty regimes.

The Australia Group

The Australia Group is an informal arrangement whose objective is to limit the transfer of precursors to chemical weapons, equipment used in the production of CBW and biological warfare agents. The participating states have agreed to apply decisions taken collectively through their national export control systems. Created in 1985 when it was clear that Iraq was using CW in its war against Iran, the original objective of the AG was to prevent CW proliferation while the negotiations to complete the CWC were being undertaken. Subsequently, it has acted to prevent BW proliferation during the process of developing improved measures to ensure compliance with the BTWC. Its most recent annual meeting was held in Paris on 6–9 October 1997. As in 1996, 30 states attended and the European Commission participated as an observer. No changes were made to the agreed common control lists.⁴⁰ By 1997 all participants had become parties to both the BTWC and the CWC.

The Australia Group has no charter and, apart from the support provided by the Australian Department of Foreign Affairs and Trade as point of contact and the Australian embassy in Paris as meeting place, it has no institutional foundations. Because of its informal nature, the AG cannot enforce implementation of its decisions. Each member must incorporate the agreed measures into its national export control legislation. As decisions are reached by consensus, the other participants can exert moral and political pressure to ensure the maximum harmonization of policies. The Australia Group also provides a forum to share information from a variety of sources, including intelligence agencies, on the activities, programmes and methods of acquisition of CBW proliferators: to express concerns; and to discuss items on the export control lists and policy measures to control CBW proliferation.⁴¹ Some of the shared information comes from the exporting companies themselves. It does not appear that the Australia Group maintains an official list of target countries or differentiates between levels of restriction on the export of listed commodities on the basis of CBW proliferation threat evaluations of the targeted countries.⁴² There are approximately two and one-half days of expert group meetings and a plenary meeting, which is a policy consultation meeting attended by diplomats and experts. Chemical and biological weapon experts and law enforcement and customs officials of the various countries participate in the expert groups, depending on the matters under consideration. In keeping with the informal character of the AG, procedures and practices at these meetings are adjusted as considered necessary.

The Australia Group also has no formally agreed policy on membership. An informal practice has developed instead under which decisions to admit applicant countries are taken by consensus, based on the collective judgement of the states participating in the AG meeting that the prospective member can contribute to furthering the AG's non-proliferation objectives. In this process the adequacy of a prospective member's CBW-related export controls and its overall approach to non-proliferation issues are taken into account.⁴³

Coordination of export control procedures is the principal policy instrument in the effort to stem CBW proliferation within the framework of the AG. In June 1993 the Australia Group adopted a so-called 'no undercut' policy.⁴⁴ The policy seeks to avoid a situation in which an AG member competing for a lucrative business deal tendered by a potential proliferator would grant an export licence under the presumption that otherwise another AG state would do so. The AG countries honour the decisions of other AG states to deny a

³⁸ Described in section IV of INFCIRC/539 (note 32).

³⁹ The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction is reproduced in Geissler, E. and Woodall, J. P. (eds), *Control of Dual-Use Agents: The Vaccines for Peace Programme*, SIPRI Chemical & Biological Warfare Studies, no. 15 (Oxford University Press: Oxford, 1994), pp. 243–45; and at the SIPRI CBW Project Internet URL <<http://www.sipri.se/dbw/docs/cbw-bw-c-mainpage.html>>.

⁴⁰ The Australia Group agreed common control lists include CW precursors, dual-use chemical manufacturing facilities and equipment, and related technology, biological agents, animal pathogens, dual-use biological equipment, and plant pathogens.

⁴¹ Morel, B., 'How effective is the Australia Group?', eds K. Bailey and R. Rudey, *Proliferation and Export Controls* (University Press of America: Lanham, Md., 1993), p. 57; Perry Robinson, J. P., 'Chemical and biological weapons proliferation and control', *Proliferation and Export Controls: An Analysis of Sensitive Technologies and Countries of Concern* (Delta Limited and Safeworld: Chertsey, Surrey, 1995), pp. 41, 43; and Vachon, G. K., 'The Australia Group and proliferation concerns', *UNIDIR Newsletter*, no. 33 (1996), p. 59.

⁴² Perry Robinson (note 41).

⁴³ Private communication with the author by officials attending AG meetings, Nov. 1997 and Apr. 1998.

⁴⁴ US Arms Control and Disarmament Agency, 'Australia Group' (28 Oct. 1997), URL <<http://www.acda.gov/factsheet/wmd/cw/aus496.htm>>, version current on 16 Feb. 1998.

particular export. If an AG country does not grant an export licence it notifies the other AG states of its decision and provides them with information regarding the goods, their destination and the end-user. If, however, a second AG member has doubts about or disagrees with the proliferation risk assessment on which the original denial was based, it is obliged to consult with the country that denied the export licence before proceeding with a sale, which otherwise would undercut the original denial. The outcome of this consultation mechanism can be either that the state which has issued the denial notification revokes it, and thus allows the export to proceed, or that both countries agree on the soundness of the denial and, consequently, refuse the licence. All denials are subject to periodic review with the issuing country stating whether a particular denial should continue to stand or not.⁴⁵

This practice strengthens the export control regime in two ways. First, it signals to a potential proliferator that it will not be able to play off one Australia Group member against another. Second, the commitment of the AG participants to the regime is strengthened by their refusal to grant an export licence on the grounds that otherwise a competitor in another AG country might win the business.⁴⁶

There have been some efforts to streamline Australia Group policies and coordinate them with other export control regimes. In its 29 June–2 July 1992 meeting the MTCR made its membership identical to that of the AG by admitting Greece, Ireland, Portugal and Switzerland, and extended the scope of the MTCR to include missiles capable of delivering chemical and biological warheads.⁴⁷ In May 1994 the AG held a joint meeting with MTCR licensing and enforcement experts.⁴⁸ No further joint meetings have apparently been held since then and membership is no longer identical. The AG lists of controlled goods have also been included in the Wassenaar Arrangement and the EU regulation on exports of dual-use goods.

The legal status of CBW-related export control mechanisms

Chemical and biological weapons and related dual-use commodities are the object of six export control regimes: (a) treaty-based regimes—the CWC and the EU regulation on dual-use goods;⁴⁹ (b) non-treaty-based regimes—the Australia Group and the Wassenaar Arrangement on export controls for conventional arms and dual-use technologies; and (c) sanction regimes, such as

⁴⁵ UK, Department of Trade and Industry, Export Control Organisation, 'Export controls: a guide for business', URL <http://www.dti.gov.uk/exportcontrols>, version current on 9 Apr. 1998, and private communication with the author by an official attending AG meetings, Apr. 1998.

⁴⁶ The practice, however, also creates legal problems for the exporting companies. According to business experts the AG members produce case law for each other, and companies are consequently expected to be aware of decisions that are not disclosed to the public. For transfers to potentially sensitive destinations companies are essentially forced to consult with the authorities. Jokinen, A. and Stephenson, J., 'Trade controls, growing uncontrollably', *Kemira-Kemii*, vol. 20, no. 9–10 (1993), p. 833.

⁴⁷ '29 June–2 July', *Chemical Weapons Convention Bulletin*, no. 17 (Sep. 1992), p. 17.

⁴⁸ '16–19 May', *Chemical Weapons Convention Bulletin*, no. 25 (Sep. 1994), p. 16.

⁴⁹ The BTWC does not have a specific export control regime, but such measures are currently the subject of negotiations as part of a future protocol to the convention (see below).

multilateral sanctions imposed by the UN Security Council and the unilateral sanctions imposed by one state or group of states against another state.⁵⁰ These regimes differ in legal status, the identity of the participants, the goods controlled and, notably for the sanction regimes, the objectives and duration. The BTWC and the CWC aim to be universal and therefore constitute inclusive regimes: the strength and relevance of both conventions are correlated to the number of participating states. All the other regimes are exclusive: the number of participating states in the export control arrangements is limited, and membership does not follow automatically from a national decision to join the forum,⁵¹ although any state may opt to implement similar measures unilaterally.

On 29 April 1997 the CWC entered into force.⁵² The convention deals with the threat of CW proliferation by requiring all parties to destroy existing CW stockpiles and to undertake not to acquire chemical weapons under any circumstances. Article I of the CWC also commits parties never to 'assist, encourage or induce, in any way, anyone to engage in any activity prohibited under the convention. The CWC will benefit greatly from universal adherence and will progressively introduce a discriminatory regime for trade with non-parties in the chemicals listed in schedules 1–3 of the convention.⁵³ It is hoped that the negative impact on their economic development will induce non-parties to join the convention. In support of this aim Article XI of the CWC requests parties not to maintain barriers which restrict or impede trade for legitimate purposes with other parties and to review their national regulations on the trade of chemicals in order to render them consistent with the object and purpose of the CWC. The verification and inspection regime of the CWC enhances the effectiveness and credibility of the trade controls.

The BTWC, in contrast, lacks both verification mechanisms and treaty-specified trade controls. Under Article III parties undertake not to transfer to any recipient whatsoever biological agents, toxins, weapons, equipment or means of delivery and never to assist, encourage or induce, in any way, any state, group of states or international organizations to acquire BW. Article X commits parties to facilitate the fullest possible exchange of equipment, materials, and scientific and technological information for peaceful purposes and declares that the convention shall be implemented in such a manner as to avoid hampering the legitimate economic or technological development of parties. Verification measures and trade controls are currently the subject of

⁵⁰ Sanction regimes are not discussed in the present chapter. Multilateral sanctions by the UN Security Council, for example, were imposed on Iraq following its defeat in the 1991 Persian Gulf War. Cuba, on the other hand, faces unilateral sanctions by the USA. Cuba has called for their abolition under Article XI of the CWC. Statement by the Delegation of Cuba to the Sixteenth Plenary Session, 9 Apr. 1997. Preparatory Commission document PC-XVII/16, 9 Apr. 1997, p. 2.

⁵¹ These issues are discussed in more detail in Zanders, J. P., 'Chemical weapons between disarmament and nonproliferation', *The Monitor*, vol. 3, no. 3 (summer 1997), pp. 18–23.

⁵² See appendix 11A and annex A in this volume.

⁵³ Toxic chemicals and their precursors are categorized in 3 schedules in the convention by the degree of risk which they pose to the purposes of the CWC and their relevance to legitimate industrial and commercial activities. Schedule 1 chemicals pose the greatest risk and are least relevant to legitimate purposes, and schedule 3 chemicals are deemed to pose the least risk to the convention and have widespread legitimate application.

negotiations in the Ad Hoc Group of the parties to the BTWC in Geneva to make them part of a future protocol to the BTWC. The proposed language in Article VII of the 'rolling text' seems to indicate that the transfer of relevant materials under Article X of the BTWC might be made explicitly contingent on full compliance with Article III of the convention: 'Transfers of materials, equipment and technology of concern [shall] [should] [only] take place in full compliance with [all] the provisions of [Article III and] [Article X] of the BTWC [and subject to the protection of commercial and proprietary information and national security information] [taking into consideration the international law relating to the protection of commercial and proprietary information]'.⁵⁴ The many brackets indicate the level of disagreement. The document does not prejudice the position of delegations, so the bracketed sections merely indicate preliminary concerns.⁵⁵

The EU dual-use regulation also creates a treaty-based regime, which may pose a problem with respect to the CWC. On signing the CWC in January 1993, most EU member states added a written clarification similar to the following: 'As a member state of the European Community, the Government of Belgium will implement the provisions of the Convention on the prohibition of chemical weapons, in accordance with its obligations arising from the rules of the treaties establishing the European Communities to the extent that such rules are applicable'.⁵⁶ For the EU member states community law is self-executing and therefore takes precedence over national law. Following ratification of the CWC, a party must enact national legislation, subject to approval by the respective parliaments, to implement the convention. That national legislation cannot contravene EU law.

Two main areas of conflict may arise. First, the EU dual-use regulation is not applicable to transfers of commodities among EU member states unless it is known that they are intended for use in connection with non-conventional weapons.⁵⁷ Restrictions imposed by the CWC on transfers of scheduled chemicals thus do not apply to transactions among EU member states as long as these chemicals are also listed in the EU dual-use regulation. Second, the EU dual-use regulation contains a 'catch-all' clause. A transfer involving dual-use goods which are not on the control lists to a party outside the EU requires authorization if it is known that these goods are intended for programmes involving non-conventional weapons.⁵⁸ Moreover, national legislation may include a clause requiring an exporter to inform the government of his suspi-

⁵⁴ Article VII, (B), 3, (i), (b) Procedural Report of the Ad Hoc Group of the States Parties to the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on Their Destruction, BWC/AD HOC GR/OU/P38, 6 Oct. 1997, p. 65.

⁵⁵ Procedural Report of the Ad Hoc Group of the States Parties (note 54), p. 3.

⁵⁶ *Multilateral Treaties Deposited with the Secretary-General: Status as at 31 December 1995* (United Nations: New York, 1996), pp. 872-74.

⁵⁷ Council Regulation (EC) no. 3381/94 of 19 Dec. 1994 setting up a Community regime for the control of exports of dual-use goods, *Official Journal of the European Communities*, L367, 31 Dec. 1994, especially Article 2 (b) and Articles 3 and 4.

⁵⁸ The national interpretations of the catch-all clause still require harmonization among EU members. In some countries the clause becomes operational if the exporter has been informed by the government.

cion that the goods are intended for such armament programmes.⁵⁹ To summarize, the EU dual-use regulation creates a legal framework under which EU member states could be exempted from licensing and reporting requirements under the CWC and establishes an export control regime for all countries irrespective of whether or not they are a party to the CWC. However, all EU members are also parties to the CWC, and its national implementation has thus far not caused any problems with the EU obligations. Practice will demonstrate how these potential conflicts—if they arise—can be resolved.

The international debate concerning the Australia Group

The debate between the Australia Group participants and several developing countries focuses on the relationship between Articles III and X of the BTWC and between Articles I and XI of the CWC. The CWC contains its own set of trade controls in Article VI,⁶⁰ and many developing countries view the maintenance of an export control regime outside the CWC as undermining the commitment made in Article XI (Economic and technological development).

A chemical industry is recognized to be one of the key elements necessary for sustainable development. For some developing countries Article XI of the CWC and the adverse effects of trade restrictions on scheduled chemicals as regards non-parties were important reasons for joining the convention.⁶¹ For example, Algeria, Morocco and Tunisia—together with South Africa the main importers and only exporters of schedule 2 and 3 chemicals in Africa⁶²—defected from the position adopted by the League of Arab States not to ratify the CWC unless Israel joins the Non-Proliferation Treaty because of the

⁵⁹ Council Regulation (EO) no. 3381/94 (note 57), Article 4.

⁶⁰ Schedule 1 chemicals can only be transferred between 2 parties for research, medical, pharmaceutical or protective use and in quantities defined in the General Provisions of Part VI of the Verification Annex. They cannot be retransferred to a 3rd state. Both parties must notify the Technical Secretariat (TS) not less than 30 days before any transfer. All parties must submit detailed annual reports to the TS regarding the transfer of Schedule 1 chemicals. Three years after entry into force of the CWC its parties will be allowed to transfer Schedule 2 chemicals, but only among themselves. Such transactions will not be subject to the stringent quantitative conditions or reporting requirements that apply to Schedule 1 chemicals. In the interim 3-year period, parties may transfer Schedule 2 chemicals to non-parties if they obtain an end-use certificate specifying *inter alia* the conditions laid down in the CWC. The transfer of Schedule 3 chemicals is only addressed in relation to non-parties. There are no quantitative limits, but the exporting party must ensure that Schedule 3 chemicals will not be used for purposes prohibited by the CWC. An end-use certificate which meets the stipulations imposed by the CWC is required. Five years after entry into force of the CWC, the Conference of the States Parties will consider the need to establish other measures regarding the transfer of Schedule 3 chemicals to non-parties. The regimes that govern the transfer of chemicals are detailed in the Verification Annex (Part VI, B for Schedule 1 chemicals, Part VII, C for transfer of Schedule 2 chemicals to non-parties, and Part VIII for transfer of Schedule 3 chemicals to non-parties). Initial and annual declarations must be made of the import and export of Schedule 2 and Schedule 3 chemicals to other parties according to Part VII, A and Part VIII, A of the Verification Annex, respectively.

⁶¹ Zanders, J. P., 'Putting the horse before the cart: some thoughts on controlling unconventional arms in the Middle East', Paper presented at the conference the EU's Common Foreign and Security Policy and World Responsibilities, organized by the Institut d'études européennes, Université Libre de Bruxelles and the Olof Palme International Center (Stockholm), Brussels, 3-5 Oct. 1997, publication forthcoming.

⁶² Kifeyesus, M., 'Article XI: the driving force for African CWC ratification', Paper presented to the 7th Workshop Study Group on the Implementation of the Chemical and Biological Weapons Conventions, Noordwijk, The Netherlands, 6-8 June 1997.

adverse effect non-ratification would have on their economic development. For other developing countries, which have limited or no trade in scheduled chemicals, the technology transfer aspects of Article XI and the assistance provisions of Article X provided a greater incentive to join the convention.

At the 16th and final session of the Preparatory Commission (PrepCom) of the Organisation for the Prohibition of Chemical Weapons (OPCW) in April 1997 Kenya elaborated on the balance between global security and national development. On the one hand, the country recognized that the CWC was the first 'multilateral treaty with a universal application geared to offer us an opportunity towards total elimination of weapons of mass destruction', which therefore required full and effective implementation. On the other hand, Kenya 'attaches equal importance to Article XI which provides an expanded international cooperation in the field of chemical activities for purposes not prohibited under the Convention' and its 'fast growing chemical industrial base looks upon this as an opportunity for speedy industrialization and economic growth'. It called for a balanced approach between the security and development components during implementation of the CWC.⁶³

Fearing further obstacles to economic development, certain developing countries called for the abolition of the AG. They were supported by Yuri Klyutin, head of the Russian delegation to the 16th session of the PrepCom, who stated that all restrictions on trade in chemicals should be lifted for any country that ratified the CWC after it entered into force.⁶⁴

In contrast, many industrialized states perceive a rapidly changing security environment in which the use of CBW, despite the disarmament conventions, is a distinct possibility. The emergence of a multipolar global system with its increased regional insecurity after 1989, the 1991 Persian Gulf War against Iraq, which was then known to possess CBW, and the use of a nerve agent by religious extremists in Japan in 1994 and 1995 have added to calls to strengthen the Australia Group's export control regime. In particular the difficulties encountered by the United Nations Special Commission on Iraq (UNSCOM), and the fact that after six years of intrusive inspections no guarantee can yet be given that the full extent of the Iraqi CBW programmes is known, raised doubts about the effectiveness of the elaborate verification mechanisms of the CWC.⁶⁵ Further justification for the continued functioning of the AG follows from the lack of verification mechanisms in the BTWC. Progress towards a protocol to the BTWC was modest in 1997. The success of these negotiations will depend largely on that of the CWC regime.⁶⁶

⁶³ Statement by the Delegation of Kenya at the Sixteenth Plenary Session of the Preparatory Commission for the Prohibition of Chemical Weapons, 9–15 Apr. 1997, The Hague, Preparatory Commission document PC-XVII/28, 14 Apr. 1997, pp. 1–2.

⁶⁴ Statement made by the Delegation of the Russian Federation at the Sixteenth Plenary Session of the OPCW Preparatory Commission on 9 April 1997, Preparatory Commission document PC-XVII/18, 9 Apr. 1997, p. 2.

⁶⁵ See also the sections 'Chemical and biological warfare proliferation concerns' and 'UNSCOM developments' in chapter 11 in this volume.

⁶⁶ See also the section 'Biological weapon disarmament' in chapter 11 in this volume.

In view of the continued debate the Australia Group took care to define its relationship with the BTWC and the CWC, although some passages in the October 1997 press release reiterate earlier statements: the national export licensing arrangements are 'aimed at preventing inadvertent assistance to the production of chemical and biological weapons' and provide 'practical support for the global bans on these weapons'.⁶⁷ While acknowledging that 'full adherence to the BTWC and CWC will be the best way to rid the world of these heinous weapons of mass destruction for all time', the AG noted that 'continued informal cooperation in the maintenance of effective licensing measures remains relevant and reinforces the effective implementation of the Conventions'.⁶⁸

The persisting debate has also made the Australia Group participants aware of the necessity to ensure the continued transparency of their national export controls. To this end they conduct briefings for non-participants. Australia, as the chair of the AG, has for some years maintained a practice of briefing a significant number of non-participants on the outcome of the AG meetings. These briefings have sometimes resulted in countries exploring the possibility of membership or adopting similar export control measures unilaterally. In order to further awareness and understanding the AG initiatives also include regional seminars. After the October 1996 meeting of the Australia Group a regional CBW export control seminar was also held in October for the countries of Central and Eastern Europe and the Commonwealth of Independent States, and in January 1997 Japan organized an Asian regional seminar on export controls.⁶⁹ At the 16th session of the PrepCom the European Union declared that it was willing to address all matters of substance regarding the CWC, including those related to Article XI.⁷⁰

At the heart of the discussion is the fact that neither the BTWC nor the CWC gives guidance about the relationship between the conventions and other non-proliferation regimes. Both conventions prohibit parties from assisting in any way in the BW or CW armament programmes of other countries or individuals but give no indication how that goal should be achieved. In other words, the BTWC and the CWC do not prohibit export control arrangements such as the Australia Group, nor do they indicate that such supply-side groups are the sole option. Developing countries, however, perceive a continuous strengthening and institutionalization of the AG regime: its members meet annually; the lists of controlled goods have been incorporated in other export control arrangements; and, although it merely reflects US policy, one of the

⁶⁷ Australia Group meeting, 6–9 Oct. 1997, Press release, Australia Group document DOC AG/Oct97/Press/Chart/20, Paris, 9 Oct. 1997.

⁶⁸ Australia Group meeting (note 67).

⁶⁹ Australia Group meeting (note 67).

⁷⁰ Statement on behalf of the European Union delivered by Jan Zaadhof, Head of the Netherlands Delegation to the Sixteenth Plenary Session of the Preparatory Commission of the OPCW, The Hague, Preparatory Commission document PC-XVII/33, 15 Apr. 1997, p. 2.

'continuing vitality of the Australia Group and national export controls'.⁷¹

At the time of the entry into force of the CWC the export licensing issue appeared near resolution. Several parties provided information that their trade in dual-use chemicals with potential application as CW precursors was less than 1 per cent of their total trade in chemicals and that few license applications for these chemicals were refused.⁷² In November 1996 Iran submitted a working paper to the PrepCom suggesting a compromise: the CWC parties could agree on a supplementary system of import controls based on end-user certificates, to be issued by the recipient, for chemical compounds listed in the AG warning list (but not in the CWC schedules) and for certain chemical manufacturing facilities and equipment. Under the proposal, the OPCW would be the sole body responsible for verifying compliance with the CWC, and its parties would undertake no unilateral action to prevent CW proliferation.⁷³

The issue, however, has not been fully resolved. Some developing countries view the existence of the AG as a major impediment to full, equitable implementation of the BTWC and the CWC. Neither convention was devised for some of the security challenges which exist in the post-cold war world, so some measures may be required to reinforce the global disarmament regimes. The negotiators currently working on a protocol to the BTWC, in fact, may be pointing to a solution to the unresolved issue: a conventional system of trade controls among states whereby the recipient state also exercises import controls and offers verifiable guarantees that the imported goods are not diverted for purposes prohibited by either the BTWC or the CWC.

V. The Missile Technology Control Regime

The MTCR is a voluntary arrangement among countries which share a common interest in stopping certain kinds of missile proliferation. The regime applies a common set of guidelines to an agreed list of controlled items. The aim of the MTCR is to restrict the acquisition of missiles, unmanned air vehicles (UAVs) and related technology for systems capable of carrying a 500-kilogram (kg) payload at least 300 kilometres (km), as well as systems intended for the delivery of NBC weapons.⁷⁴ Controlled items include ballistic

⁷¹ USA, *Congressional Record*, 24 Apr. 1997, p. S3653. In particular, the president must certify prior to the deposit of the instrument of ratification that, among other things, each AG member understands and agrees that 'export control and non-proliferation measures which the Australia Group has undertaken are fully compatible with the provisions of the Convention, including Article XI (2), and its commitment to maintain in the future such export controls and non-proliferation measures against non-Australia Group members'.

⁷² Mathews, R. J., 'Preparing for implementation of the Chemical Weapons Convention: progress during 1996', *Verification 1997* (Verification Technology Centre, London, 1997), p. 104, fn 43.

⁷³ Islamic Republic of Iran, Implementation of Article XI in the field of chemical trade, Preparatory Commission document PC-XV/B/WP.6, 5 Nov. 1996.

⁷⁴ The MTCR was originally concerned only with nuclear-capable delivery systems. In Jan. 1993 the MTCR Guidelines were expanded to cover delivery systems capable of delivering all NBC weapons. The document is available at URL <http://www.sipri.se/projects/armstrade/mtrcguidelines.html>.

missiles, cruise missiles, space launch vehicles (SLVs), sounding rockets, drones and remotely piloted vehicles (RPVs).

Despite the gradual increase in the membership of the MTCR, its members have acknowledged the need for increased cooperation with countries outside the regime. Events in 1997 underlined that some of the most pressing issues related to missile proliferation are beyond the scope of the MTCR. The regime can only make a limited contribution to managing potential security problems stemming from bilateral transfers between non-members. Issues such as reported Chinese missile-related transfers to Pakistan and North Korean missile transfers to countries in the Middle East have usually been addressed directly by the United States.

In October 1994 China gave the USA assurances that it adheres to the original 1987 MTCR Guidelines and Annexes.⁷⁵ In spite of press reports that China has transferred to Pakistan missile components, unassembled missiles, and equipment and know-how for use in missile production, the US Government has stated that it has 'no evidence that China has conducted activities inconsistent with this commitment'.⁷⁶ According to Israel and South Korea, North Korea has exported approximately 300 Scud-C missiles to Iran and Syria.⁷⁷ Despite a series of bilateral discussions with the USA on the issue of missile proliferation, North Korea has not agreed to any controls on its exports.⁷⁸

Given that the Soviet Union was one of the most important suppliers of surface-to-surface and cruise missiles, it appeared to be a significant step forward for the MTCR when Russia became a member in 1995. However, in 1997 it was alleged that Russia was engaged in practices that would be very difficult to reconcile with the MTCR Guidelines.

In particular, Israel alleged that Russia was making missile-related transfers to Iran—said to be developing several surface-to-surface missiles.⁷⁹ According to the Israeli Minister of Defence, Iran has received assistance from Russian technicians to develop a guidance system for its missiles.⁸⁰ The Russian Space

⁷⁵ China and nonproliferation, US Department of State Fact Sheet, Washington, DC, 17 June 1997, URL <http://www.state.gov/www/regions/eaip/fs-china_nonprolif_970617.html>, version current on 23 Feb. 1998; see also Statement of Assistant Secretary of State Stanley Roth before the Senate Foreign Relations Committee, 17 Sep. 1997, URL <gopher://198.80.36.82:70/0R47838619-47854927-rang/archives/1997/pdq.97>, version current on 23 Feb. 1998.

⁷⁶ US State Department Daily Press Briefing, DPB no. 131, 10 Sep. 1997, URL <gopher://gopher.state.gov/70/000/pip%3AADOS/Fan%3AGopher%3A02%20Public%20Affairs%3APress%20Briefings%20-%20COnferences%3A1997%20Press%20Briefings%3A9709%20Press%20Briefings%3A970910%20Daily%20Briefing>, version current on 5 Mar. 1998.

⁷⁷ Israel held a series of bilateral talks with North Korea on missile sales to the Middle East in 1992 and 1993 but apparently with no result. In Aug. 1997, during a visit to South Korea by Israeli Prime Minister Benjamin Netanyahu, Israel and South Korea agreed to exchange information and to cooperate in opposing the proliferation of missiles and nuclear weapons. *Korea Newswire*, 30 Aug. 1997, p. 6.

⁷⁸ In Apr. 1996 representatives of the USA and North Korea held talks on missile proliferation in Berlin. Additional talks were scheduled to take place in New York in Aug. 1997. However, after the North Korean Ambassador to Egypt sought political asylum in the USA the North Korean representatives withdrew from the New York talks. *International Herald Tribune*, 28 Aug. 1997, p. 1; and *Korea Newswire*, 30 Aug. 1997, p. 11.

⁷⁹ See Chapter 7 in this volume.

⁸⁰ *Jerusalem Post* (international edn), 4 Oct. 1997, p. 2.

Agency was also said to be providing solid-fuel technology to the Iranian missile programme.⁸¹

Under these circumstances several commentators raised the question of whether Russia—which, because it joined the MTCR in 1995, accepted the MTCR Guidelines as revised in January 1993—was implementing its commitments in good faith. One leading expert on the MTCR suggested that if the allegations were proved 'continued Russian membership [of the MTCR] is no longer in the interests of the regime'.⁸²

The January 1993 version of the MTCR Guidelines included language intended to move the regime away from the approach of relying strictly on technical parameters (such as range and payload) and towards an approach of slowing/preventing all programmes of concern. Missile programmes of concern were defined to include those that might be linked to the delivery of weapons of mass destruction—not only nuclear weapons, but also chemical and biological weapons.

This change was reflected in the new guidelines in the statement: 'Particular restraint will also be exercised in consideration of transfers of any items in the [Equipment and Technology] Annex, or of any missiles (whether or not in the Annex), if the Government judges, on the basis of all available, persuasive information, evaluated according to factors including those in paragraph 3, that they are intended to be used for the delivery of weapons of mass destruction, and there will be a strong presumption to deny such transfers'.⁸³ This language incorporated the basic principle of the US Enhanced Proliferation Control Initiative⁸⁴ into the multilateral guidelines. The principle (sometimes called the 'catch-all' or 'know' rule) is that, if an exporter is aware that an item will contribute to the proliferation of weapons of mass destruction, the export should be prevented whether or not it conforms to technical parameters in a commodity control list.

At the same time it is the responsibility of the individual governments to decide whether or not a given transfer should be approved, taking into account five factors listed in the MTCR Guidelines (although other factors may also be taken into account). The five factors are:

⁸¹ *Moskovsky Konsomolers*, 15 Sep. 1997, in Foreign Broadcast Information Service, *Daily Report—Central Eurasia (FBIS-SOV)*, FBIS-SOV-97-258, 15 Sep. 1997; and *Defence News*, 15-21 Sep. 1997, p. 8.

⁸² Speier, R., 'Russia and missile proliferation', Statement before the Subcommittee on International Security, Proliferation and Federal Services of the Committee on Governmental Affairs, US Senate, 5 June 1997, reproduced in *The Monitor*, vol. 3 no. 3 (summer 1997), pp. 31-34.

⁸³ The Equipment and Technology Annex of the MTCR is a restricted document. However, it is known to be divided into 2 categories of items. Category I, considered most sensitive and to which the greatest restrictions apply, consists of complete systems and specially designed production facilities for these systems along with complete subsystems usable in these systems and production facilities and production equipment for the subsystems. Category II consists of a range of materials, components and equipment which can be of use in missile programmes.

⁸⁴ *Fact Sheet on Enhanced Proliferation Control Initiative* (White House, Office of the Press Secretary, Washington, DC, 13 Dec. 1990).

- A. Concerns about the proliferation of weapons of mass destruction;
- B. The capabilities and objectives of the missile and space programs of the recipient state;
- C. The significance of the transfer in terms of the potential development of delivery systems (other than manned aircraft) for weapons of mass destruction;
- D. The assessment of the end-use of the transfers, including the relevant assurances of the recipient states referred to in sub-paragraphs 5 A and 5 B below; [and]
- E. The applicability of relevant multilateral agreements.⁸⁵

The assurances from recipient states refer to an end-use assurance from the buyer that 'the items will be used only for the purpose stated and that such use will not be modified nor the items modified or replicated without the prior consent of the [supplier] Government' and an assurance that 'Neither the items nor replicas nor derivatives thereof will be retransferred without the consent of the [supplier] Government'.⁸⁶

In 1997 the question of how Russia applies the MTCR Guidelines through its national export control system in cases of transfers of category II items to Iran was raised by the United States in bilateral meetings in the framework of the US-Russian Joint Commission on Technological Cooperation (the Gore-Chernomyrdin Commission).⁸⁷ The Gore-Chernomyrdin Commission report found no evidence of Russian deliveries of missile technology to Iran. The allegations were also investigated by a group of US officials led by Ambassador Frank Wisner, who visited Israel and Russia in mid-1997.⁸⁸

Officials from the Russian Government stressed that, while Russia has bilateral cooperation of various kinds with Iran (including military-technical matters), no assistance was being given to Iran's missile programme. The Russian Space Agency explained that its bilateral contact with Iran related to the possible use of Russian SLVs to carry Iranian civilian satellites.⁸⁹ The director of the Federal Security Service of Russia noted that a case had been revealed in which Iranian representatives who were interested in developing a natural gas pumping station tried to purchase parts which could be used in the manufacture of a liquid-propellant rocket engine from a Russian enterprise. However, permission to export these parts was denied and no transfer took place.⁹⁰ It has also been reported that the Federal Security Service detected efforts by Iran to

⁸⁵ The MTCR Guidelines are available at URL <<http://www.sipri.se/projects/armstrade/mtrguidelines.html>>.

⁸⁶ Note 85.

⁸⁷ The Gore-Chernomyrdin Commission, which was established in 1993 as a joint initiative of US Vice-President Al Gore and Russian Prime Minister Viktor Chernomyrdin, meets regularly to promote cooperation on a wide range of issues related to energy, environmental protection, science and technology, health, space exploration and defence conversion. US Department of State, *Fact Sheet: Gore-Chernomyrdin Commission* (Bureau of Public Affairs, Washington, DC, 21 Sep. 1994). See also chapter 10 in this volume.

⁸⁸ US State Department Press Briefing, DPP no. 142, 2 Oct. 1997. URL <<http://gopher.state.gov:70/000hp/3ADOSfan/3AGopher/3AA02/20Public/20Affairs/3APress/20Briefing/20-%20Conferences/3A1997/20Press/20Briefing/3AA9710/20Press/20Briefing/3AA971002/20Daily/20Briefing>>, version current on 5 Mar. 1998.

⁸⁹ ITAR-TASS, 16 Sep. 1997, in FBIS-SOV-97-259, 16 Sep. 1997; and ITAR-TASS World Service, 26 Sep. 1997, in FBIS-SOV-97-269, 26 Sep. 1997.

⁹⁰ ITAR-TASS World Service, 29 Oct. 1997, in FBIS-SOV-97-302, 29 Oct. 1997.

acquire ballistic missile-related technologies in Russia and provided some information on these efforts to US counterparts during the discussions led by Ambassador Wisner.⁹¹

To summarize, the public information is insufficient to establish which, if any, missile-related technology transfers have occurred between Russia and Iran. The Russian Government has undoubtedly taken significant steps to establish an effective national export control system, but there is evidence of weakness in that system. Cooperation between government agencies, between government and industry, and within industry all appear to fall short of international 'best practices'.

In January 1998 the Russian Government issued a new regulation that apparently introduced a 'catch-all' provision into Russia's national export control system for dual-use goods and technologies.⁹²

During the cold war Turkey participated in the COCOM embargo on exports of strategic goods to state socialist countries.⁹³ In the 1990s significant changes were made in Turkey's national export control system, including the introduction of measures designed to enable Turkey to implement the provisions of the MTCR. The measures designed to implement the provisions of the MTCR in Turkey took effect on 19 March 1997.

The primary legal foundation of the Turkish national export control system is the Law on the Control of Private Industrial Enterprises Producing War Weapons, Vehicles, Equipment and Ammunition, Law no. 3763 of 1940. Under this law the Ministry of National Defence issues an annual notification in the *Official Gazette* setting out which goods and technologies require special permission prior to export from or transit through Turkey. In 1996 a direct reference to the MTCR control list was introduced in this notification.⁹⁴ Goods referred to in the annual notification cannot be exported without the prior permission of the Ministry of National Defence (MND).

In 1995 Turkey introduced a system of registration for exporters of controlled goods. In order to be eligible to export controlled goods it is necessary to belong to the Union of Exporters of Metals and Metallurgical Items (IMMIB), an association that is under the supervision of the Undersecretariat for Foreign Trade.⁹⁵ An exporter must have an export manifest validated by the IMMIB before controlled items can be transferred to a customer. If the IMMIB experts consider that the items fall under the MTCR Guidelines, the export is submitted to the relevant agency within the MND for approval

⁹¹ *International Herald Tribune*, 9 Dec. 1997, pp. 1, 4; and Schweid, B., 'Russia promises to curb missile deals', URL <http://www.foxnews.com/news/news wires/20116/n_ap_0116_n_13_smi>, version current on 16 Jan. 1998.

⁹² 'Dual technologies under double control', interview with Foreign Ministry spokesman Gennadiy Tarasov in *RIA Novosti Daily Review*, 10 Feb. 1998, URL <http://www.ria-novosti.com/products/dr/1998/02/10-002-1.htm>, version current on 9 Mar. 1998.

⁹³ COCOM was disbanded on 31 Mar. 1994.

⁹⁴ Notification no. 96/2. Regarding the goods the export of which are prohibited or subject to prior license, *Official Gazette*, no. 22515 (6 Jan. 1996). Information provided by the Embassy of Turkey in Stockholm, 16 Dec. 1997.

⁹⁵ Export Regime Decree no. 95/7623, 21 Dec. 1995. Information provided by the Embassy of Turkey in Stockholm, 16 Dec. 1997.

before the validation is given. The exporter is required to provide the Turkish customs authority with documents that confirm both the prior permission of the MND and the validation of the IMMIB in order for the goods to leave Turkey.

VI. European Union dual-use export controls

In 1995 the EU established an export control system based on Community legislation in the form of a Council Decision and a Council Regulation.⁹⁶ Responsibility for implementing the system and developing it further is divided between the Council of the European Union and the European Commission.

The Council of the European Union (usually known as the Council of Ministers) is where the member states legislate for the EU, set its political objectives, coordinate national policies and resolve differences between themselves and with other institutions. The European Commission is tasked with ensuring that EU legislation is applied by the member states and taking action if there is evidence of breaches of treaty obligations. The Commission also proposes new legislation for consideration by the member states.

There is legal ambiguity about how authority is allocated between the member states and the Commission. In two cases the European Court of Justice has ruled that dual-use goods fall within the scope of the common commercial policy of the EU as defined in Article 113 of the 1957 Treaty Establishing the European Economic Community (Treaty of Rome).⁹⁷ However, most aspects that have an impact on the system fall under a Joint Action taken in the framework of the Common Foreign and Security Policy—and are therefore outside the competence of EU institutions. As the necessary information and licensing procedures remain at the national level, in practice the export control system is controlled by the member states.

The security implications of the proliferation of dual-use goods and technology are discussed in an ad hoc group of the Council of Ministers, the Committee on Nonproliferation (CONOP), as part of its Common Foreign and Security Policy 'pillar'. The meetings focus on general policy preparation and information exchange. Non-proliferation is usually on the agenda at the regular high-level and expert meetings between the European Union and the USA.

⁹⁶ The legal basis for the system is formed by 2 documents: Council Regulation (EC) 3381/94 (note 57); and Council Decision of 19 Dec. 1994 on the joint action adopted by the Council on the basis of Article 13 of the Treaty on European Union concerning the control of exports of dual-use goods, Decision 94/942/CSP, *Official Journal of the European Communities*, L367/37, 31 Dec. 1994, as amended. The system is described in more detail in Anthony, Eckstein and Zanders (note 1), pp. 359–63.

⁹⁷ European Commission, 'Action plan for the defence-related industries', COM(97)583 final/Annex II, 12 Nov. 1997, URL <http://europa.eu.int/en/comm/dg/inf/publicat/aerospac/com583e.htm>, version current on 24 Feb. 1998. Article 113 could give the European Commission a far greater role in developing the dual-use export control system in that it calls for a policy based on 'uniform principles' (and makes specific reference to export policy in this context). This article also authorizes the Commission to open and conduct negotiations with states and international organizations on matters related to commercial policy.

Based on the first 18 months of operation of the export control system it seems unlikely that a common EU position on non-proliferation will emerge in the short term. Member states prefer to discuss these issues in the informal multilateral regimes described in this chapter (to which they all belong). Similarly, because member states can introduce recommendations and views on the modification of equipment lists in the other multilateral regimes, there is little incentive to develop an EU list different from those adopted elsewhere.

The EU system seems to have led to practical improvements in export control implementation. There will be some advantages to industry in having simplified procedures for obtaining a licence and managing their shipments of goods. The common acceptance of countries listed in Annex II of the Council Decision (destinations to which simplified export licensing procedures may be adopted) could lead to harmonized practices with regard to general licences (i.e., licences to make multiple shipments of a given product without the need for repeated applications to a national authority).

Eleven countries now appear to be using standard documentation for export licensing, which will ease the problem for customs authorities in recognizing valid licences at points of exit. The four remaining countries (Greece, Portugal, Spain and the United Kingdom) are also expected to adopt the standard documentation in time as they have no objection to the idea in principle.

Information exchange has been stimulated between member states both on a bilateral basis and by the use of a common communication system. Greater awareness of how other countries implement export controls could lead to a convergence around best practices as well as allow countries to build a more complete picture of potential proliferation risks.

Further steps

The European Commission may recommend new legislation because of the apparent failure of the current mechanism to evolve towards a genuine EU export control system. Among the proposals which could be included in such legislation might be: (a) harmonization of procedures and practices in issuing general licences; (b) extension of 'catch-all' provisions to transfers of dual-use goods to countries under a United Nations mandatory embargo; and (c) development of procedures that would require detailed discussion and explanation of a decision by an EU member state to export a controlled item to a state which had previously been denied a licence for the same item by another EU member state.

Appendix 9A. Nuclear Suppliers Group consultation and information exchange procedure guidelines

MEMORANDUM OF UNDERSTANDING ON IMPLEMENTATION OF 'DUAL-USE' GUIDELINES

Warsaw, 31 March-3 April 1992

The Governments subscribing to this Memorandum of Understanding (MOU) (hereinafter referred to as 'Subscribing Governments') intend to implement the Guidelines for Transfers of Nuclear-Related Dual-Use Equipment, Material and Related Technology and its accompanying Annex in accordance with their national legislation and relevant international commitments in the following manner:

Scope of application

1. The aforementioned Guidelines will be applied to each transfer of any item in the Annex. However, in the case of transfers to destinations within the jurisdiction or control of Subscribing Governments, it is a matter for the discretion of a Subscribing Government to determine the expedited export licensing measures to apply and whether to apply paragraph 5 of the Guidelines.

Further, in the case of transfers to destinations within the jurisdiction or control of other Governments agreed upon by Subscribing Governments through consultations:

(i) it is a matter for the discretion of a Subscribing Government to determine the particular export licensing measures to apply consistent with obtaining the information and, as appropriate, the assurance required by paragraph 5 of the Guidelines; and

(ii) paragraph 6 of the Guidelines may be implemented by a requirement that the recipient notify the supplier sufficiently in advance of a retransfer to a third country of any equipment, material, or related technology, identified in the Annex, or any replica thereof, to permit the supplier to communicate its views, as appropriate.

Consultations

2. The Government should consult with other Subscribing Governments through regu-

lar channels and through the convening of at least one annual meeting. These consultations should address such matters as:

(a) Information exchanges, as appropriate; (1) in pursuit of the Basic Principle and paragraphs 4 and 5 of the Guidelines;

(ii) concerning decisions by Subscribing Governments not to authorize transfers of equipment, material or related technology;

(iii) on measures taken to implement the Guidelines; and

(iv) on proposed and authorized transfers, on a voluntary basis;

(b) Additional measures, as referred to in paragraph 7 of the Guidelines, as appropriate.

(c) Updating the Annex, as necessary.

Violations

3. In the event that one or more Subscribing Governments believes that there has been a serious violation of supplier-recipient understandings resulting from the application of the Guidelines, Subscribing Governments, as appropriate, should consult promptly through regular channels to discuss appropriate responses.

Decisions on transfers

4. (a) The Government should provide prompt notification to other Subscribing Governments of a decision it has made pursuant to the Guidelines not to authorize a transfer of equipment, material, or related technology identified in the Annex.

(b) The Government should not authorize a transfer of equipment, material, or related technology identified in the Annex which is essentially identical to a transfer which was not authorized by another Subscribing Government where this decision was notified pursuant to subparagraph (a), without consulting the Subscribing Government which provided the notice. After such consultations, the Government, in the event of its authorization of the transfer, should notify other Subscribing Governments of its authorization. Thereafter the restriction on transfers set forth in the first sentence of this subparagraph will no longer apply.

(c) Three years after the issuance of a notification of non-authorization, the Govern-

ment which provided the notice should review the basis for that decision and advise the other Subscribing Governments of its conclusions through regular channels. If the conclusion is to confirm that the basis for the decision still obtains, the procedure outlined above in subparagraph 4(b) should apply once more. The conclusions called for in this subparagraph should also be reviewed at the meetings to be held pursuant to paragraph 2 above.

Commercial confidentiality

5. The Government should not take commercial advantage of information exchanged under this MOU and should strictly protect the commercial confidentiality of such information.

Subscribing Governments

6. (a) Those governments that exchange notes of acceptance of this MOU and both the Guidelines and the Annex on (DATE TO BE DETERMINED IN WARSAW MEETING) are thereafter Subscribing Governments.

(b) Subsequently, upon the unanimous consent of all existing Subscribing Governments, any other government becomes a Subscribing Government based on an exchange of notes of acceptance of this MOU and both the Guidelines and the Annex with all existing Subscribing Governments.

Concluding provision

7. Any changes to the Guidelines, Annex, or the MOU require the unanimous consent of the Subscribing Governments.

Source: Document supplied by the Nuclear Suppliers Group. It is available at Stockholm International Peace Research Institute, Memorandum of understanding, URL <http://www.sipri.se/projects/armstrade/NSG_MOU.html>, version current on 15 Dec. 1997.

10. Nuclear arms control

SHANNON KILE*

I. Introduction

In 1997 efforts to advance the nuclear arms control and non-proliferation agenda yielded mixed results. The year ended with key pieces of 'unfinished business' remaining unfinished. The landmark Comprehensive Nuclear Test-Ban Treaty (CTBT), which had been adopted overwhelmingly in the United Nations General Assembly in 1996, remained in limbo as proponents struggled to win the ratifications of the 44 states needed to bring it into force. The Conference on Disarmament (CD) had yet to form a committee to negotiate a global convention banning the production of fissile material for nuclear explosives. One of the keystones of US-Russian nuclear arms control endeavours, the 1993 Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II Treaty), remained unratified by the Russian Federal Assembly (Parliament), despite a political agreement reached in March between US President Bill Clinton and Russian President Boris Yeltsin on a set of measures to improve the treaty's prospects of ratification.

There were also positive developments in nuclear arms control during the year. In the USA and across the former Soviet Union, the large-scale dismantlement of strategic nuclear weapons and associated infrastructure proceeded ahead of the interim deadlines set out in the 1991 Treaty on the Reduction and Limitation of Strategic Offensive Arms (START I Treaty). The impasse in the negotiations between Russia and the USA over a US proposal to clarify the scope of the 1972 Anti-Ballistic Missile Treaty (ABM Treaty) was formally resolved when the two sides reached agreement on the demarcation between strategic and theatre (non-strategic) missile defence systems, although some arms control advocates warned that the permissive terms of the agreement will undermine the ABM Treaty and actually impede progress in nuclear arms control. In addition, Clinton and Yeltsin agreed on the outline of a START III accord that could bring about further reductions in the Russian and US nuclear arsenals and make those cuts permanent and irreversible.

This chapter reviews the principal developments in nuclear arms control and non-proliferation in 1997. Section II highlights the progress made by the five parties to START I in eliminating strategic nuclear weapons and associated infrastructure. It focuses on the stalled START II ratification proceedings in the State Duma (the lower house of the Federal Assembly) and describes the Clinton-Yeltsin agreement on a package of treaty amendments and follow-on measures aimed at addressing Russian deputies' objections to that treaty.

* Data for figure 10.1 were provided by Robert S. Norris and William M. Arkin.