

Appendix 15A. Multilateral weapon and technology export controls

IAN ANTHONY and JEAN PASCAL ZANDERS

I. Introduction

This appendix describes identified changes in the membership, control lists, guidelines and procedures of five multilateral export control regimes. The regimes are the Nuclear Suppliers Group (NSG), the Zangger Committee, the Australia Group (AG), the Missile Technology Control Regime (MTCR) and the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technology (WA). In 1998 there were changes to the membership of the NSG and the MTCR and changes in the control lists used by the Wassenaar Arrangement. Table 15A.1 lists the members of these regimes.

II. The Nuclear Suppliers Group and the Zangger Committee

The Nuclear Suppliers Group is an informal group of states which seeks to ensure that exports of nuclear and nuclear-related dual-use items do not contribute to nuclear explosive or unsafeguarded nuclear activities. In 1998, 35 states were members of the NSG, with Latvia participating for the first time.

The annual plenary meeting of the NSG took place in Edinburgh, Scotland, on 30 March–2 April 1998. Coming before the nuclear tests in India and Pakistan, the meeting mainly addressed three issues: procedures for information exchange among the members, efforts to promote transparency and openness in NSG activities, and possible new members.

This reflects the impact of recent changes in the nuclear non-proliferation regime for the work of the NSG. Although there is no direct connection between the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (NPT) and the NSG, the 1995 NPT Review and Extension Conference, in particular the decision on principles and objectives at that conference, has had an impact on the activities of the group. As the NSG has become more open in recent years its activities are being discussed by a wider range of states and non-state actors.¹

The second issue taken up by the NSG is that of possible new members. Five countries—Belarus, China, Cyprus, Kazakhstan and Turkey—have expressed an interest in learning more about the NSG or in participating. A consensus is required among the existing membership before new states may participate. In addition to a demon-

¹ E.g., 1 principle adopted in 1995 was that full-scope safeguards should be a condition of any new supply arrangement while others enhanced the role of the International Atomic Energy Agency (IAEA) in verifying and assuring compliance with safeguards agreements and the role of the IAEA in dealing with cases of non-compliance. In 1992 the NSG participants adopted a standard by which a recipient must accept IAEA full-scope safeguards as a condition of supply for source and special fissionable materials. The 1995 decisions were considered by some to raise questions about the relationship between the NSG and the activities of the IAEA, the presentation of NSG activities in the NPT review process and even the continued need for the NSG.

Table 15A. Membership of multilateral weapon and technology export control regimes, as of 1 January 1999

State	Zangger Committee ^a 1974	NSG ^b 1978	Australia Group ^a 1985	MTCR ^c 1987	Wassenaar Arrangement 1996
Argentina	x	x	x	x	x
Australia	x	x	x	x	x
Austria	x	x	x	x	x
Belgium	x	x	x	x	x
Brazil		x		x	
Bulgaria	x	x			x
Canada	x	x	x	x	x
China	x				
Czech Republic	x	x	x	x ^d	x
Denmark	x	x	x	x	x
Finland	x	x	x	x	x
France	x	x	x	x	x
Germany	x	x	x	x	x
Greece	x	x	x	x	x
Hungary	x	x	x	x	x
Iceland			x	x	
Ireland	x	x	x	x	x
Italy	x	x	x	x	x
Japan	x	x	x	x	x
Korea, South	x	x	x		x
Latvia		x ^d			
Luxembourg	x	x	x	x	x
Netherlands	x	x	x	x	x
New Zealand		x	x	x	x
Norway	x	x	x	x	x
Poland	x	x	x	x ^d	x
Portugal	x	x	x	x	x
Romania	x	x	x		x
Russia	x	x		x	x
Slovakia	x	x	x		x
South Africa	x	x		x	
Spain	x	x	x	x	x
Sweden	x	x	x	x	x
Switzerland	x	x	x	x	x
Turkey				x	x
UK	x	x	x	x	x
Ukraine	x	x		x ^d	x
USA	x	x	x	x	x
Total	33	35	30	32	33

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

^a The European Commission 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 1998.

strated commitment to nuclear non-proliferation, new members must have in place national policies and procedures that allow them to implement commitments undertaken in the framework of the NSG.

The Zangger Committee, also known as the Nuclear Exporters Committee, developed out of the perceived need among a group of nuclear suppliers to clarify their obligations under Article III.2 of the NPT. Under this article parties may not provide source or special fissionable material, or equipment, or material especially designed or prepared for the processing, use or production of special fissionable material to any non-nuclear weapon state for peaceful purposes, unless the source or special fissionable material shall be subject to safeguards. The purpose of the Zangger Committee was to define how this commitment should be interpreted by nuclear suppliers. The agreement reached was that items identified on an agreed list (known as the Trigger List) would be exported only if the material in question was subject to safeguards under an agreement with the International Atomic Energy Agency (IAEA).

In 1998, 33 states participated in the Zangger Committee, which meets twice a year. At the time of the first 1998 meeting, in May, Pakistan was conducting nuclear tests and the implications were discussed by the group. At the October meeting the Zangger Committee produced an agreed statement condemning the tests by India and Pakistan.

The Zangger Committee considered but did not introduce changes to the Trigger List in 1998. These changes would consist of adding technologies used to convert nuclear facilities previously used for military purposes to the Trigger List. The consequence of this change would be that exports of such technologies would be conditional on a safeguards agreement between the recipient and the IAEA.

III. The Australia Group

The Australia Group is an informal group of states whose objective is to limit the transfer of chemical precursors, equipment used in the production of chemical and biological weapons (CBW), and biological warfare agents. The participating states have agreed to apply decisions taken collectively through their national export control systems. Created in 1985, the original objective of the AG was to prevent chemical weapon (CW) proliferation while the negotiations to complete the 1993 Chemical Weapons Convention (CWC) were being undertaken. Subsequently, it has also acted to prevent biological weapon (BW) proliferation during the process of developing improved measures to ensure compliance with the 1972 Biological and Toxin Weapons Convention (BTWC).²

The most recent annual meeting of the Australia Group was held in Paris on 9–15 October 1998. As in 1997, 30 states attended and the European Commission

² The history, structure and procedures of the AG are discussed in greater detail in Anthony, I. and Zanders, J. P., 'Multilateral security-related export controls', *SIPRI Yearbook 1998: Armaments, Disarmament and International Security* (Oxford University Press: Oxford, 1998), pp. 386–94.

participated as an observer.³ No changes were made to the Australia Group's so-called warning lists.⁴

Following the 1995 sarin attack in the Tokyo underground, the Australia Group began in-depth political-level discussions of CBW proliferation and terrorism. At the behest of the USA, the participants at the 1998 plenary session shared information on the legal and regulatory efforts each member had taken to counter this threat.⁵

Conscious of the continuing criticism by some developing countries that no CBW-related export control arrangement should exist in addition to the BTWC and the CWC, the AG countries stressed in their media release that universal adherence to and compliance with the two treaties would be the most effective way to rid the world of CBW. They added that their consultations complemented and were consistent with the purposes of these conventions. The discussions on the national export licensing measures and procedures of each of the participating countries aimed to prevent the inadvertent contribution to CBW programmes, on the one hand, and to ensure that the trade in chemical precursors, biological agents and dual-use equipment for legitimate purposes is not inhibited, on the other hand. The AG participants remained prepared to assist other countries in implementing similar export control measures on a national basis and will continue to give briefings and regional seminars on export licensing practices for countries not participating in the Australia Group.⁶

IV. The Missile Technology Control Regime

The MTCR is an informal and voluntary process in which countries that share the goal of non-proliferation of unmanned delivery systems for weapons of mass destruction and seek to coordinate national export licensing efforts aimed at preventing their proliferation cooperate. Participating states have agreed a set of guidelines to be applied in making their national decisions whether or not to export an agreed set of equipment and technology.

In 1998 three new members—the Czech Republic, Poland and Ukraine—participated in MTCR meetings for the first time, bringing the membership to 32.⁷ All three of these states have sought to participate in the regime for a number of years, including bringing their national export controls in line with the MTCR Guidelines and the Equipment and Technology Annex.⁸ Until 1998 there was no consensus within the

³ On 19 Dec. 1998, the Government of Cyprus announced that it had taken the decision to join the AG and that it had appointed a ministerial committee to draw up legal amendments and regulations for controlling certain substances passing through Cyprus. 'Cyprus to join in struggle against chemical weapons', *Xinhua* (Nicosia), CNN Custom News (19 Dec. 1998), URL <<http://customnews.cnn.com/>>.

⁴ The AG export control warning 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. The lists are available at URL <<http://www.sipri.se/cbw/research/AG-mainpage.html>>.

⁵ Letter from the President to the Speaker of the House of Representatives and the President of the Senate, 12 Nov. 1998, URL <<http://www.pub.whitehouse.gov/uri-res/I2R?urn:pdi://oma.eop.gov.us/1998/11/16/9.text.1>>.

⁶ Australia Group Meeting, 9–15 Oct. 1998, Media release, Australia Group document Doc AG/Oct/Press/Chair/21.

⁷ Two countries, China and Israel, apply the MTCR Guidelines to their national exports without participating in the regime.

⁸ 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 pro-

regime about their admission to meetings and the decision to admit the Czech Republic and Poland does not seem related to any modification in their approach to missile proliferation. Rather, it seems linked to their impending membership of NATO and the anomaly that would be created by leaving members of the alliance outside the MTCR.

The issue of how to avoid missile proliferation while stimulating international cooperation in civilian aerospace programmes has become increasingly important with the growing commercial value of satellite-launch services and the civil space industry in general. This issue played an important role in the accession of Ukraine to the MTCR.

Cooperation to prevent missile proliferation has been one issue taken up in the bilateral Ukrainian–US Cooperation Commission (also known as the Kuchma–Gore Commission) which was initiated in 1997. The commission has discussed how to create conditions in which US–Ukrainian aerospace industry cooperation can take place while providing safeguards against missile proliferation.⁹

This issue was also central to China's relations with the MTCR in 1998. During preparations for the visit of President Bill Clinton to China in 1998, the USA raised the issue of Chinese membership of MTCR in the context of the impact on US national export controls. John Holum, the acting Under-Secretary for Arms Control and International Security Affairs, noted that if a US company is to launch a satellite on a Chinese rocket, that requires both an export licence and a technology security plan to avoid transfers of technology to Chinese military programmes. According to Holum, consideration of the licence could be expedited if China were to join the MTCR—although membership of MTCR would not lead to transfers of technology, only to a more rapid consideration of the application.¹⁰

The extent to which the MTCR is able to impact those missile programmes of most concern to the participating states is something of an open question. In its 1998 plenary meeting in Budapest the main discussions between participating states concerned missile programmes in China, India, Iran, Iraq, North Korea and Pakistan.¹¹ None of these states is a member of the MTCR.

North Korean programmes to develop and produce missiles as well as foreign sales of missiles and missile technologies by North Korea attracted widespread attention in 1998. North Korea was identified by Japan as the main source of technology for the Pakistani Ghauri missile, a surface-to-surface missile which was tested to a range of 1100 km in April 1998.¹² The Indian Ministry of Defence has claimed that China is the main supplier of the technology for Ghauri.¹³ Pakistan claims to have developed and produced this missile indigenously.

duction equipment for the subsystems. Category II consists of a range of materials, components and equipment which can be of use in missile programmes.

⁹ United States Information Agency, 'Transcript: remarks of Albright and Udovenko in Kiev', 9 Mar. 1998, URL <<http://pdq2.usia.gov>>.

¹⁰ US Department of State, 'Special briefing on trip to China', 9 Apr. 1998, URL <http://www.state.gov/www/policy_remarks/1998/980409_holum_china.html>.

¹¹ MTI (Budapest), 9 Oct. 1998, in 'Hungary: Gyarmati briefs press on MTCR conference in Budapest', Foreign Broadcast Information Service, *Daily Report—East Europe (FBIS-EEU)*, FBIS-EEU-98-285, 14 Oct. 1998.

¹² Japan's Foreign Minister Masahiko Komura stated that Japan has 'reliable information that the missile used in the launch was imported from North Korea'. Harney, A. and Farhan Bokhari, 'Pakistan fired N. Korean missile', *Financial Times* (Internet edn), 25 Sep. 1998; and chapter 9 in this volume.

¹³ Institute for Defense and Disarmament Studies, *Arms Control Reporter* (IDDS: Brookline, Mass.), sheet 706.B.252–56, Apr. 1998.

In June 1998 North Korea officially acknowledged its missile exports, although without confirming which missiles are exported or to which countries.¹⁴ The official news agency released the statement that North Korea will continue developing, testing and deploying missiles and will export these missiles to obtain foreign exchange.¹⁵ In August and September 1998 North Korea and the USA held the third round of bilateral talks on missile-related issues, apparently without any change in North Korean policy although further talks will be held at an unspecified date.¹⁶

Although Russia is a member of the MTCR the question of Russian contributions to Iran's ballistic missile programme, raised in 1997, has mainly been discussed bilaterally with the United States and bilaterally with Israel.¹⁷ Andrey Kokoshin, at that time Secretary of the Russian Security Council, visited Israel in August 1998. He reassured the Israeli Government that Russia had no intention of assisting missile proliferation in Iran and discussed cooperation between Russia and Israel—both in following up allegations of illegal transfers and expanding scientific and economic cooperation between the two countries.¹⁸

In July 1998 US Secretary of State Madeleine Albright handed over to the Russian Government the evidence gathered by the United States of participation by Russian entities in the Iranian missile programme. The documents mentioned 11 entities and organizations which were said to have provided support of some kind.¹⁹

Russian dual-use export controls are managed by the Government Commission on Export Control chaired by the Minister of Economy. In July 1998 the results of an inquiry into allegations of illegal exports of missile technologies by the commission led to further special investigations of nine enterprises and institutions where there appeared to be a case to answer.²⁰ The nine Russian entities were named and the United States in turn introduced restrictions on cooperation with them by US firms.²¹

The nine entities were: Glavkosmos, the INOR Scientific Production Centre, the Graft State Scientific Research Institute, the Polyus Scientific Research Institute, the Tikhomirov Instrument Building State Research Institute, the Komintern Plant, the MOSO Company, Europalas 2000 Company and the Baltic State Technical University. It is alleged that cooperation between some of these Russian entities and partners in Tajikistan and Azerbaijan in fact provided a front for cooperation with Iran. However, according to investigations by the Russian Federal Security Service the Azerbaijani case (involving Europalas 2000) did not involve the export of metals

¹⁴ North Korea has acknowledged exporting Scud-B and Scud-C missiles, both missiles with a shorter range than the Ghauri, and has not officially acknowledged supporting Pakistan's missile programme.

¹⁵ Sang-Hun Choe, 'North Korea admits selling missiles', Associated Press, 16 June 1998, URL <<http://wire.ap.org/APnews>>; and Choson Ilbo (Seoul), 17 June 1998, in 'South Korea: Paper on intention behind DPRK admitting missile expert', in Foreign Broadcast Information Service, *Daily Report—Arms Control (FBIS-TAC)*, FBIS-TAC-98-169, 19 June 1998.

¹⁶ US Department of State, 'US–DPRK missile talks', Press statement by James P. Rubin, 2 Oct. 1998, URL <<http://secretary.state.gov/www/briefings/statements/1998/ps981002.html>>.

¹⁷ Allegations of Russian–Iranian missile-related cooperation are discussed in Anthony and Zanders (note 2), pp. 397–98.

¹⁸ Kuzmin, O., ITAR-TASS (Moscow), 11 Aug. 1998, in 'Russia: Kokoshin winds up three-day visit to Israel', FBIS-SOV-98-223, 13 Aug. 1998.

¹⁹ Extracts from these primary documents were later published in Eggert, C., 'Meteor dlya ayatoll' [Meteor for the Ayatollah], *Izvestiya*, 22 Oct. 1998, p. 5.

²⁰ The national laws and procedures for controlling exports of dual-use technologies are different from those for conventional arms, although both were modified in 1998.

²¹ Information on the 9 is compiled at Monterey Institute of International Studies, 'Institutions suspected by the Russian Government of violating export control legislation', URL <<http://cns.miiis.edu/research/summit/9firms.htm>>.

subject to controls but rather stainless steel, although the export may have violated other customs laws and foreign exchange regulations.²²

Following the investigations the Russian offices of an Iranian industrial group, Sanam, were closed and a group of Iranian students at the Baltic State Technical University (who were employees of Sanam) were sent home.

Non-proliferation issues are one part of a complex set of internal changes taking place in Russia. In 1998 changes were under way in Russia's export control procedures for missiles and missile-related technologies, in the organization of the government missile and space organizations and in the missile and space-launch vehicle production industry.

Within the Russian Defence Council and Security Council there have been active discussions of the future of Russia's space establishment and industry (both military and civilian), which has been described by President Boris Yeltsin as a central element of military reform.²³

In the military sphere, the military space forces and missile defence forces are being merged into a unified branch of the armed forces responsible for intelligence gathering, communications, combat command and control, missile early warning and tracking as well as operation of strategic missile forces. In the civil sphere, Russia intends to participate in the development of a new global communications infrastructure partly based on satellites. In this effort the Russian Space Agency (RSA) plays a central role of coordination. Both the military and civilian effort rest on largely the same industrial base.

In 1998 the Russian Ministry of Economy transferred control of the main joint-stock companies engaged in developing and producing equipment to the RSA in order to permit the agency to implement a unified state policy for the missile and space industry. The RSA is also to implement a unified state policy in the development and production of strategic missile technology. Finally, the RSA was also instructed, in cooperation with the Ministry of Defence, to utilize strategic missiles withdrawn from service as space-launch vehicles.²⁴

The civilian elements of the overall programme depend on cooperation with foreign partners, notably those in the USA.²⁵ This cooperation is dependent on the US Government being assured that technology provided for civilian commercial purposes will not be diverted either in to the Russian military programmes or to unauthorized foreign end-users.

²² The investigation was conducted in cooperation with Azeri customs officers and underlined the potential importance of cooperation within the Commonwealth of Independent States. Interfax (Moscow), 22 Apr. 1998, in 'Azerbaijan: Azeri customs seize Iran-bound missile materials', FBIS-SOV-98-112, 28 Apr. 1998; and 'Transcription by A. Yelizarov of remarks by Major General Aleksandr Zdanovich, chief of the Federal Security Service [FSB] Public Relations Center', *Rossiyskaya Gazeta* (Moscow), 1 July 1998, p. 8, in 'Russia: FSB aide denies dual-use export charges', FBIS-SOV-98-182, 6 July 1998.

²³ In Jan. 1998 Yeltsin said that 'Space activity is of enormous importance in safeguarding national security and strengthening the country's defensive might and its economic, scientific and social development'. Anokhin, P., 'Kremlin's space directive: Russia determines fate of key sector on which country's security and future depend', *Rossiyskiye Vesti*, 21 Jan. 1998, pp. 1, 2, in 'Russia: Yeltsin on space issues at Defense Council', FBIS-SOV-98-021, 23 Jan. 1998. See chapter 4 in this volume.

²⁴ The implementing legislation for these changes is contained in Presidential decree no. 54, 'On the implementation of state policy in the sphere of the missile and space industry', 20 Jan. 1998; and Russian Federation Government decree no. 440, 'On measures to fulfil Russian Presidential decree no. 54', 12 May 1998.

²⁵ The US-Russian joint venture company Lockheed-Khrunichev-Energiya, which jointly develops and manufactures the Proton space-launch vehicle, is perhaps the best example.

In 1998 Russia and the USA formed a Joint Commission to Monitor Exports of Nuclear and Missile Technologies.²⁶ In the wake of the firing by North Korea of a rocket Russia and the United States also agreed to exchange information on missile launches and early-warning procedures. An ad hoc group of experts was to examine the idea of a multilateral missile launch early-warning regime open to other nations.²⁷

Russia also undertook an internal programme intended to provide enterprises and companies with information and assistance to establish internal procedures that would allow them to prevent unauthorized foreign transfers of controlled items.²⁸

V. The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technology

The Wassenaar Arrangement is an informal grouping of states in which participants exchange information and views on transfers of items contained on agreed lists of munitions and dual-use items, respectively—although there is nothing to exclude participating states from raising other issues. The participating states hope that information exchange and discussion will, by promoting transparency and greater responsibility, prevent destabilizing accumulations of conventional arms and sensitive dual-use technologies. Participating states in the WA use the information gathered through their multilateral discussions when making their national decisions on whether to approve or deny any given request to export a controlled item.

In the public statement following their plenary meeting in December 1998 the participating states underlined the increasing amount of information exchanged in the framework of the Wassenaar Arrangement.²⁹ During 1998 the participating states considered how to elaborate the meaning of the expression ‘destabilising accumulation of conventional arms’ for the particular purposes of implementing national export controls. At the meeting in December a document was adopted which contained what were described as ‘elements for objective analysis and advice concerning potentially destabilising accumulations of conventional weapons’.³⁰

The document identified a series of questions that national authorities might address in the process of deciding whether or not to permit a given transfer. The questions were grouped into six sets under the following headings: Assessment of Motivations of the State under Study; Regional Balance of Forces and the General Situation in the Region; Political/Economic Standing/Status of the State; Operational Capability; Acquisition of Military Technology; and Other Factors.

While the paper released by the Wassenaar Arrangement is not considered exhaustive, it would in some cases require a thorough analysis of the strategic environment into which conventional arms may be introduced before an export licence was

²⁶ ITAR-TASS (Moscow), 24 July 1998, in ‘Russia: Russian Prime Minister, Gore issue joint statement’, FBIS-SOV-98-205, 27 July 1998.

²⁷ These efforts are discussed in chapter 12 in this volume.

²⁸ ‘Procedural guide for establishment of intraorganizational export control at enterprise’, *Rossiyskaya Gazeta* (Moscow), 15 May 1998, in ‘Russia: “methodological guide” for export control’, FBIS-SOV-98-139, 21 May 1998.

²⁹ Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technology, Public Statement, Vienna, 3 Dec. 1998.

³⁰ Elements for objective analysis and advice concerning potentially destabilising accumulations of conventional weapons, non-binding paper approved by the Wassenaar Arrangement, 3 Dec. 1998. It is available at URL <<http://www.wassenaar.org>> or URL <<http://www.sipri.se/projects/expcon/expcon.htm>>.

approved. For medium-sized and small states this is likely to increase the value of information exchanged in the framework of the WA as they may not have sufficient resources to conduct such an exhaustive analysis on a purely national basis. As such, the paper would seem to be a solid foundation for further development of the Wassenaar Arrangement.

At the meeting changes were also introduced to the control lists to eliminate coverage of commonly available civil telecommunications equipment and to update controls on encryption technologies to reflect the development and availability of commercial encryption products.

The Wassenaar Arrangement seeks to complement and reinforce other processes and initiatives without duplication. Reference was made in the public statement to processes intended to address the negative impact that transfers of small arms and light weapons may have.³¹

³¹ Control of the trade in light weapons is discussed in appendix 11E in this volume.