

provide adequate funding for nuclear safeguards and security. The economic burden could also be significantly reduced by a consolidation of fissile materials to fewer number of sites and to fewer areas within individual sites.

International Cooperation. The greatest value of the international cooperation at present is that it provides funding and motivation thereby facilitating safeguards modernization at Russia's facilities. In the future, as the national economy improves, Russia will hopefully provide adequate safeguards funding and Russian experts will be able to work with their foreign counterparts on a more equal basis. International cooperation, however, will remain important. It would provide the opportunity for technical exchanges and peer review. The similarities in the size and structure of the U.S. and Russian nuclear complexes, and parallel nuclear security interests of the two countries make them natural safeguards partners. There is also a need in cooperation with the IAEA and European nations.

Conclusion. The security of nuclear materials in Russia today is higher as compared to the early 1990s. The system of nuclear safeguards, however, is not yet sustainable. Security upgrades at individual facilities are incomplete. Some of the national-level programs are still in their infancy. The level of funding remains inadequate. The regulatory oversight is fragmented and, generally, is not well established.

Cooperation with the West (and in particular with the United States) will therefore remain essential for both short-term security enhancements and their long-term sustainability. Probably its most valuable result so far is the development of a constituency of safeguards professionals and their exposure to modern technologies and methods, as well as the development of trust between U.S. and Russian technical experts. It is important to continue a robust nuclear security cooperative effort even after the scheduled upgrades will have been completed.

Eventually, however, sustainability of safeguards will be in the hands of the Russian government. The Russian government has the ultimate responsibility for security of nuclear materials and facilities. It, therefore, must provide adequate funding, strengthen the regulatory authority, and to implement a program of consolidation and re-structuring the nation's nuclear complex. ■

RUSSIA, IRAN, IRAQ AND EXPORT CONTROLS: FACTS AND CONCLUSIONS

by Vladimir Orlov

In recent months, issues of controlling critical exports in Russia became more acute. They are being discussed on the federal level (Government of the Russian Federation (RF), Presidential Administration), among local authorities, enterprises of the military-industrial complex (MIC), and the export community. The President of Russia, amongst a government crisis, finds time to converse with the Director of the Federal Security Service about a singular case: an attempt to export steel from Russia to Iran, a type of which which can be considered a dual-use item.¹ The main reason for that is the desire to assess Russia's capabilities to implement export control legislation and regulations (primary and secondary) that have been developed since 1992.

As far as critical export controls are concerned, Russia presently has them established on an adequate level. First, Russia's *control lists* are in full compliance with her international obligations. Moreover, they are enacted by presidential decrees, which is atypical for other countries where export control requirements are no less strict than in Russia. In some degree, this fact brings the significance of export control issues in Russia to a very high level, at the same time moving up the plank of responsibility.

Secondly, export control policies on an interagency level are increasingly actively coordinated by the Export Control Commission, headed by the acting Vice-Premier and Minister of the Economy Yakov Urinson. It is interesting to note that whereas Mr. Urinson's predecessors at this post (particularly, former Vice-Premier Oleg Soskovets) openly showed little interest in the issues of export control, on the contrary lobbying for **export-permitting** components of legislation and regulation at the federal executive level, the present head of the interagency commission conceals no interest in exactly **export-controlling** components. At the very least, the Commission meets regularly, although decision-making methods and coordination processes among the relevant ministries can still be considered debatable. Besides, attempts to dissolve the Federal Currency and Export Control Service as a separate structure within the government, under the guise of *bureaucratic downsizing*, have so far been prevented.

Thirdly, MIC enterprises established educational programs to emphasize the importance of export control regulation. Now, a large number of their officials, particularly from enterprises producing dual-use items, can hardly claim ignorance of national requirements and restrictions of critical exports, although this process is far from being widely spread.

Fourthly, and finally, the RF Government adopted two noteworthy documents in order to implement the catch-all clause. On November 7, 1997, the Government adopted Resolution #1403, which established the "Procedures for Controlling the Exports to Iraq of Dual-Use Goods and Technologies, and other Items Subject to International Permanent Monitoring and Control Mechanism."² The Procedures, signed by Victor Chernomyrdin, determine the order of controlling exports from the Russian Federation to Iraq of dual-use goods and technologies, and other items originating from the Russian Federation, or issued into free circulation on the RF territory, included in the List of Dual-Use Goods and Technologies and other items whose exports to Iraq are controlled or prohibited in accordance with the resolutions of the United Nations Security Council, and approved by the Decree of the RF President #972 of September 2, 1997.³ The enactment of the Procedures came as a response to allegations by the United States and the Permanent Commission of Russia's uncontrolled delivery to Iraq of over 800 missile gyroscopic devices, and coincided with the completion of the investigation of this case by Russian intelligence.

While the Iraq resolution should be treated as an *important*, but still individual, case of export-import regulation at the federal level, which, besides anything else, just re-confirms Russia's obligations within the international sanctions against the Saddam Hussein regime, the next adopted document can rightly be seen as a *key* one in the entire set of Russian export control legislation. On February 18, *Rossiiskaya Gazeta* (published by the RF Government) has on its first page the Decision of the RF Government "On Increasing Control Over the Exports of Dual-Use Goods and Services Related to Weapons of Mass Destruction and Their Means of Delivery."⁴ This document aims at preventing exports of dual-use goods and technologies which are not included in control lists approved by the President, but still "can be used for purposes of [...] developing, production, testing, etc." of WMD and delivery means.⁵ Thus, for the first time in Russia, the catch-all principle, advocated by the United States, is used in practice, although in a normative document.⁶

Observers were immediately taken aback by the following headline from an official government newspaper: "Our Choice Is Clear: We Have Not, Do Not, And Will Not Sell That Which Brings Death to People." Another noteworthy fact was that the Decision signed by Victor Chernomyrdin on January 22 was not published until almost a month later. As I understand, the decision was not easy to make. The draft underwent severe criticism on the part of various agencies, including that in its review by RF Exportkontrol.⁷ Critics of the draft proposed to avoid copying the U.S. system, and instead to attempt to create a practical base first; otherwise, they maintained, the Decision would either flop or become an issue for some Western

leaders to accuse Russia of failing to adhere to its own (secondary) legislation. Few government experts believe in the plausibility of adhering to such strict rules as catch-all.

On the other hand, a number of experts treat this Decision (prematurely, it seems), as Russia's significant contribution towards strengthening WMD and delivery means nonproliferation regimes. The adoption of the Decision by Russia made a positive impression on Washington; it allowed some influential U.S. sources to suggest that U.S.-Russian disagreements over export controls are waning, and the whole issue may close very soon. True, however, that some U.S. observers, having first-hand knowledge of Russian realities, caution the optimism of their colleagues, citing the difficulty, and even the impossibility, to adhere to these norms in the near future.⁸

In this respect, let us consider two case studies of troubles encountered by the Russian system of controlling critical exports. The first was the leakage of missile equipment to Iraq, which occurred in 1995 and somewhat damaged Russia's image. The second was a whole complex of problems concerning Iran's attempts to acquire Russian critical materials and technologies, which heightened in 1996-97 and continues now. Thus we have at our disposal one *historical* case (the gyroscope case in Russia has been closed; so has the Iraqi missile case been closed by the UN experts); and a number of cases with *possible continuation*. Judging by that, the "gyroscope case" provides a greater informational feedback for analysis than the Iranian cases, since the information relevant to the latter is, for obvious reasons, intentionally slanted and limited in the open official materials.

Since the "gyroscope case" has been sufficiently treated in a number of publications,⁹ I will pause only to evaluate the conclusions of this truly remarkable and ingenious deal to export from Russia to the Middle East 800 components of utilized missiles, some damaged, but some in a working condition.

The first, and main conclusion is that the concept of export controls, after it descends from heights of federal authority and the theoretical, to the lows of specific enterprises and the practical, is at the embryonic stage, and has to face the harsh reality of the Russian MIC, where wages are not paid for months, conversion is normally unprofitable, and where any outside contract is welcomed as *manna from heaven*.

The second conclusion is that managers of the enterprises producing equipment, materials and technologies that can be used for developing WMD, can, through the loopholes in the existing legislation, and using bogus companies and identities, transfer critical materials and technologies under their supervision in such a way that they can get away with it, and the results of the contracts would be hard to uncover. In our case, the Russian secret service learned about the shipment of gyroscopes only from the UN

Special Commission.

The third conclusion is that the most sensitive MIC enterprises as far as illegal exports are concerned are those involved in the programs of reducing the number of Russian nuclear and missile weapons. The amount of work performed by them usually exceeds their capacity to control the materials they receive for utilization, and the general attitude on the enterprises towards these materials is as towards useless scrap that only litters the territory. In this context, any new reductions that Russia would have to perform within the next two years as part of the START-II treaty implementation (if it is ratified by the Duma), or as part of scheduled reductions (approximating those provided for by START-II) would put the Russian export control system to new tests.

It seems that the most critical group of items would include materials from the MTCR lists, since nuclear materials themselves, and, to a lesser degree, special non-nuclear materials, are now under sufficient and constant supervision. Besides, assertions that the magnitude of the deal should not be overblown, and that the gyroscopes offered for sale were damaged beyond repair, are not true. Expert evaluation showed that at least a part of the gyroscopic equipment was operational. The most important fact is not even that, but a confession of the Middle Eastern customer that the institute (which possessed the equipment) offered to sell the entire gyroscopic platform.

The fourth conclusion amounts to the inability of the Russian customs service to counter the attempts to export critical materials from Russia in cases when the deal is documented without the indication of the strategic nature of the export, and the exported items are innocently labeled (micromotors, e.g., as was the case with gyroscopes). The only hope for customs officials continues to be information leakage from the competitors about the attempt to smuggle, or from sources involved in the contract who are informers for intelligence. In other cases, as a rule, detention of critical non-radioactive materials seems improbable. As far as the radioactive materials are concerned, there exist some positive experience at main customs nodes, such as Moscow, or the Northwest (Pulkovo Customs Office, in particular), where customs officers are being trained and equipped with special detection devices. At the same time, the situation in remote checkpoints, in the Urals,¹⁰ or the North Caucasus is deplorable.

The fifth conclusion is that the Russian legal and law enforcement system is unable to bring in even the slightest vitality into the articles of the Criminal Code dealing with export control violations. While Germany, or the United States, for example, demonstrate a most serious attitude towards violations of the national legislation and international obligations regarding illegal exports of goods and technologies from *control lists*, Russia seems to treat criminal indictment excessive in such cases. One can only

guess why the criminal investigation about the smuggling of gyroscopes never went to court. Undoubtedly, there are many officers within the law enforcement and legal system who feel strongly about the continued damage to the prestige and national interests of the country.

In this respect, one can only agree with William Potter, who said in *New York Times* that "the problem [...] is not the lack of regulations of which there are dozens, but the failure to enforce them. A decision by the Russian government not to prosecute those responsible for exporting missile equipment and technology to Iraq is indicative."¹¹ The word "government," however, is not entirely appropriate. In Russia, which learned the principles of democracy and the rule of law from the West, the judiciary power is separated from the executive, and acts independently based, in this case, not on suggestions of certain ministers, but on the operational and overall rather progressive Criminal Code, adopted by the Parliament and enacted last year.

The new Criminal Code, in its Article 355, quite severely (up to 10 years of imprisonment) punishes those attempting to produce, acquire or sell chemical and biological weapons, since these WMD are banned by international treaties to which Russia is a party. Articles 220 and 221 introduce an equally severe punishment for illegal handling of radioactive materials, their theft or extortion. Finally, Article 189 establishes up to seven years of imprisonment for "illegal export of technologies, scientific and technical information, and services used in developing weapons of mass destruction, armaments and military hardware."

Thus, the Criminal Code in general quite adequately addresses the need for severe punishment for assisting in the proliferation of WMD, with proper regard to the realities of the recent years. At the same time, delivery means were simply *omitted* from the new Code, although they were present in the old one (Article 78). One can only hope that the omission was unintentional, due to the sloppiness of the Code developers, and later to the deputies who approved it in May 1996. In the "gyroscope case" such sloppiness let the perpetrators off the hook: the agents selling gyroscopes did not provide any technical manuals with them, so Article 189, under which the case should have gone to court, *was not applicable*.

The fact that the investigation found it difficult to resubmit the case under Article 188 of the Criminal Code (Contraband) also shows that the deal was legally thought out and highly sophisticated. It was achieved partially through accurate customs registration of the transaction, and partially through the creation of a front company SPM-Sistema; its connection with the closed institute (which offered the devices for sale – ed.) was obvious to the investigation, but indemonstrable. At the same time, it seems the investigation was not persistent enough, since part II of the Article directly provides for punishment of up to 7 years of imprisonment "for transfer across the RF customs border

[...] of materials and equipment that can be used in developing WMD, and which are subject to special regulation on the transfer across the RF customs border [...] if the violation is committed [...] with fraudulent use of documents or customs identification, or achieved through [...] false declaration," which, in fact, took place in August 1995, when the gyroscopes were being exported under a false label (micromotors).

After reading the January 1998 Resolution #57, many federal officials became seriously concerned whether their agencies were prepared to implement strict requirements of the document. Even a greater number of local and industry officials, though, could only smile, not believing the seriousness of the intentions of the government that can write harsh resolutions, but is incapable of taking an obvious case of missile smuggling to the court.

Does the Code have a flaw? – perhaps. Yet, have those making resolutions now demanded from the legislature to correct it? Is this *forgetfulness* intentional? — possibly. But it clearly reveals how little the government cares whether their restrictive measures to control strategic exports will work. There is even a poorly concealed element of sympathy towards the managers of the disintegrating MIC enterprises, who try through loopholes in the law to feed themselves and, perhaps, their enterprise. Who says criminal prosecution?

In the case of Iran there is another picture.

First, as of today, there is not a single confirmed fact of a leakage of critical materials and technologies from Russia to Iran: there are no grounds therefore to question the official Russian position. At the same time, there is a pile of unsupported accusations of Russia in this regard, with references mostly to the U.S. and Israeli intelligence sources. Their apotheosis became the information in the *Jerusalem Post* on the alleged smuggling of two tactical nuclear warheads from Russia (Soviet Union) in 1991 by the Iranian secret services, and their successful transport to Iran; the information was disproved even by the Pentagon.¹²

Second, whereas Iraq is subject to international sanctions, Iran is currently not under any international mandatory restrictions of trade. The positions of the United States and Israel on trading with Iran is a separate issue, which goes beyond the export control set of problems and is a part of a larger geostrategic game, where the export control theme is only a tool for advancing the U.S. and Israeli foreign policies (which have divergent objectives at times). In this context Russia, which considers Iran its strategic partner, has no grounds for restricting its trade with Iran if such trade does not violate Russia's international obligations (in the MTCR framework, for example), and its national legislation. Thus, two *nuclear* deals between Russia and Iran, on the construction of the Bushehr Nuclear Power Plant, and a research reactor using 20%-enriched uranium, are viewed by Russia as purely mutually profitable trade contracts, which, moreover, are within full compliance with

the Nuclear Nonproliferation Treaty (NPT), and are even encouraged by its Article IV.

Third, Russia indeed encountered a number of attempts by the Iranians, particularly from the state group Sanam, under various pretenses to steal scientific and technical information related to the delivery means, and even some components and materials – probably for a speedier and more successful development of the Iranian national missile program.¹³

Fourth, the issues of thwarting Iran's attempts to acquire Russian dual-use materials and technologies have recently been at least three times personally addressed by the highest state officials, who normally do not participate in this level of discussions, relying on their intelligence or foreign service instead. Russian Prime-Minister Victor Chernomyrdin at least once addressed himself with words of caution to Iran. The decision to deport an Iranian diplomat in November 1997 was made with direct approval of President Boris Yeltsin. And the April 1998 episode with alloyed steel, as was mentioned above, was a subject of conversation between the Russian President and the Director of the Federal Security Service. Thus, the Russian political leadership constantly maintains that the issues of preventing proliferation of WMD, their technologies and delivery means are of top priority in Russian foreign policy, and that Russia, even to a greater degree than the United States, is against Iran acquiring well-developed WMD and delivery means programs, even for the fact that it is not only Russia's economic partner, but also a close neighbor.¹⁴

Fifth, Iran actively, sometimes aggressively, takes steps to expand its missile and, perhaps, other military programs *in all directions*.

On the one hand, this is the use of the *human factor*, or, simply put, facilitation of brain drain from Russia to Iran. It seems virtually unreal to prevent effectively Russian missile specialists from moving to Iran, and there is no guarantee that such specialists are not effectively employed at the moment at Iranian facilities. On the other hand, training Iranian students in Russia, particularly in the Baltic Technical Institute in St. Petersburg, does not always go within the strict limits of the curriculum, and deviations from it are not always in line with export control regimes.

Furthermore, not only does Iran not limit itself to seeking materials and technologies in Russia, it even more actively establishes contacts with MIC representatives of the CIS countries, particularly from Central Asia.

Considering the differences between the *Iranian* and the *Iraqi* cases, one cannot help but notice one common trait: dominance of the *interest* factor (particularly, foreign policy interests, which are the conductor of economic interests) of certain states over the *value* factor (such as nonproliferation). Numerous speculations, intentional informational leakage (unsubstantiated, for the most part), related to Russia's violations of export controls, make one

consider the *purpose* of such campaigns. Attempts of the U.S. administration to raise the value in the issue to counter any unsanctioned exports of critical materials from Russia to Iraq or Iran cannot be viewed separately from the interests of Lukoil in Iraq, or attempts of Conoco (encouraged by the administration, by the way), to penetrate the Iranian market. However, if in the case of Iraq the blow on the Russian financial interests can be delivered by compromising the Russian diplomacy, it would be short-sighted to view the issues concerning Iran apart from the expected competition among Gazprom, Total and Conoco in the financially vast Iranian market. It is at least naïve to maintain that the issues of preventing proliferation exist separately from the interests of large business and strategic interests of states in the oil and gas sphere.

Such a situation does not, of course, release Russia from the necessity to improve the mechanisms of implementing good intentions of export controls, particularly in the area of missile hardware, dual-use materials and critical technologies. In this respect, the Russian federal government will very soon have to make certain undeclared steps in order to implement Resolution #57, such as:

- furnish all customs check points with necessary special equipment, computers and databases;
- increase the salaries of employees in critical sectors of the MIC, or shut down and close hopelessly unprofitable enterprises;
- train personnel of enterprises oriented towards exports of dual-use materials in the area of export controls (legislation, practice, the importance of nonproliferation); and
- conduct a showcase trial of industrial officials who violated export control articles of the criminal code.

Besides, it would be easier to deal with problem areas in export controls through exposing *individual bad* enterprises within the MIC, which due to their poverty, or greed of their managers, or poor security system, are a source of illegal critical exports (contraband) to *threshold* and *near-threshold* states. Too, it would be very easy to accuse a somewhat indefinable "Russian government" (either Minatom, or the Russian Space Agency, or Yeltsin) of violating the *rules of the game*. In reality, the problem is much more complex, and is complicated by the fact that the federal government will have to wage a difficult fight with financial and industrial groups in the near and intermediate future, who, not unlike their overseas colleagues, exercise significant influence in lobbying exports to certain states; Iran or Libya are sure to be on their list already. A powerful lobby would most certainly ignore the very possibility of limiting some categories of exportable goods. Therefore, with regard to the importance of financial interests in formulating foreign policy, one must not forget that uncontrolled influence of business on foreign policy is also inadmissible.

Nonetheless, appetite grows during the meal, and it

would be extremely dangerous to narrow the category of Russia's national interests to only their financial aspect. It is not the business of *Zarubezhatomenergostroi*, *Rosvooruzhenie*, or *Lukoil* to decide what Iran or China would look like in the first half of the 21st century. In its time, the Soviet Union already rendered "brotherly" assistance to China, after which the nuclear club increased from four to five states, and Russia now is forced to deploy a significant amount of nuclear (tactical) weapons in Asia. It is not by accident that Minatom closed access of all Chinese engineering interns in Russia to the sensitive information (which they had since 1991), because of incidents of know-how theft.¹⁵

In other words, there is a need for a solid analysis of nuclear, missile and other potential of Russia's current strategic partners. It seems that understanding this need, after brief euphoria, reached the Kremlin offices.

Such an analysis would require (1) time, and (2) detachment from current financial and political temptations. The analysis does not automatically mean a change of course; the conclusions may turn out to be reassuring. A distressing factor is that presently, cold rational calculation is substituted with apprehension about "another billion." It would be important for the period of this analysis to establish strictly that any industrial lobbying must pass a simple test: does, or does not a contract have violations (direct or indirect) of the presently existing in Russia national control system over nuclear or other critical exports. If the current decrees go counter to such a contract (protocol of intent), the lobbying must stop; if not – it should only be encouraged. The present Russian export control legislation is mature and balanced enough to avert attempts to "correct" it along the way. ■

Notes:

¹ *Interfax*, April 14, 1998

² *Rossiiskaya Gazeta*, November 18, 1997, p.4

³ See also Otkina, Anna, and Ivan Safranchuk, "The Role of Russia is Stabilizing Situation around Iraq, and Ways to Control Russian Critical Exports to Iraq," *Yaderny Kontrol (Nuclear Control)*, #1, January-February 1998, pp. 8-11.

⁴ *Rossiiskaya Gazeta*, February 18, 1998, p.1

⁵ *Ibid.*

⁶ See Diamond, Howard, "Russia Issues New Export Decree to Stem Missile Transfers to Iran," *Arms Control Today*, January/February 1998, on-line www.armscontrol.org.

⁷ *Voprosy Bezopasnosti*, #4, vol.24, February 1998, p.7

⁸ Otkina and Safranchuk, "The Role of Russia is Stabilizing Situation around Iraq, and Ways to Control Russian Critical Exports to Iraq," *Yaderny Kontrol (Nuclear Control)*, No.1, January-February 1998, pp. 7-8.

⁹ See, e.g., Orlov, Vladimir, and Anna Otkina, "Lessons of the Gyroscope Deal," *Digest of the Russian Journal Yaderny Kontrol (Nuclear Control)*, No. 7, Spring 1998, pp. 3-18; Orlov,

Vladimir, "If Only You Knew—," *Itogi*, April 14, 1998, pp. 30-33; Hoffman, David, "Missile Parts Set to Iraq Detained," *The Washington Post*, April 11, 1998, p. A9.

¹⁰ Kravchenko, Nikolai, "Only 25% of Border Checkpoints are Equipped with Special Smuggling Prevention Devices," *Yaderny Kontrol*, No. 20-21, August-September 1996, pp. 8-10; Cherepanov, Nikolai, "Customs Lack Real Control Over Radioactive Materials," *Yaderny Kontrol*, No. 32-33, August-September, 1997, pp. 29-30.

¹¹ Potter, William, "The Case Russia Forgot," *New York Times*, April 3, 1998, p. A23.

¹² Shumilin, Alexander, "Russia and Israel Warns the United States of Iran's Attempts to Acquire Nuclear Weapons," *Kommersant-Daily*, April 15, 1998, p.5.

¹³ Ibid. See also Kirillin, Mikhail, "Several American Companies Dealing with Missile Technologies Are Connected with Iran," *Yaderny Kontrol*, No. 2, March-April 1998, p. 38-42.

¹⁴ Chernyshev, Albert, "Russia and Iran are Viewing New Projects to Cooperate on Peaceful Atom," *Interfax*, April 10, 1996.

¹⁵ Hibbs, M., "Minatom Said to Restrict Access Following Chinese Know-How Steal," *Nucleonics Week*, 4/1/96, pp. 11-12.

export controls and the rationale and development of the Australia Group are discussed. The third section briefly outlines past attempts to strengthen the BWC both during the Review Conferences and in the context of VEREX group of governmental experts which was set up in parallel to the regular review process. The following section will then analyze in some detail the proposals currently being negotiated in the Ad-hoc Group that relate to export controls and free trade issues. The concluding section will outline a possible way out of the export control v. free trade dilemma by granting preferential treatment to faithful adherents of the future BWC protocol.

The BWC and Controls on BW-related Transfers.

Potential agents for biological and toxin warfare include living microorganisms such as bacteria, rickettsiae, fungi and viruses that cause infection resulting in incapacitation or death; and toxins, nonliving chemicals manufactured by bacteria, fungi, plants and animals.²

For a variety of reasons, attempts to use these agents for the manufacture of biological weapons (BW) are more difficult to detect and prevent than military programs aiming at the production of chemical or nuclear weapons. First of all, the large number of potential BW agents complicates the arms control task. Secondly, since BW agents are living organisms, which multiply, there is no need for a country planning to produce BW to have large production facilities and storage sites. A small amount of a pathogen with a completely legitimate civil application can thus grow into a militarily significant amount within a short period of time. This makes the potential verification of states' commitment under the BWC especially difficult. Last but not least, not only the potential pathogens and toxins but also the equipment needed for a BW program, like for example fermenters, is essentially of a dual-use character. This means, that efforts to control the spread of BW cannot conclude from the mere presence of pathogens, toxins, or equipment that a country is undertaking a military BW program. Rather, pathogens can be used in the production of vaccines, either to protect populations against endemic diseases, or military forces against BW of a potential adversary.

The dual-use problem inherent in controlling BW has been addressed in the BWC by what is frequently called the "general purpose criterion." Article I of the Convention states that:

"Each State Party to this Convention undertakes never in any circumstances to develop, produce, stockpile or otherwise acquire or retain:

- (1) Microbial or other biological agents, or toxins, whatever their origin or method of production, **of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes;**
- (2) Weapons, equipment or means of delivery designed

STRENGTHENING THE BIOLOGICAL WEAPONS CONVENTION: A ROLE FOR EXPORT CONTROLS?

by Alexander Kelle

9.02

Introduction. Biological and toxin warfare amounts to nothing less than the deliberate use of disease and natural poisons to incapacitate or kill people. In order to prevent the spread of this type of weapons, the Biological Weapons Convention (BWC)¹ was concluded in 1972 and went into force in 1975. Despite efforts to strengthen the Convention, the fundamental dual-use problem is bound to remain, i.e. the fact that BW-agents as well as related equipment can be used for both legitimate purposes as well as for military purposes prohibited by the BWC. Therefore, the question arises what role export controls will play in a future strengthened BWcontrol regime.

This paper is divided into five sections. It starts by analyzing the Convention's basic provisions as well as those that concern BW-related transfers. Then the functions of

to use such agents or toxins for hostile purposes or in armed conflict.³

In addition, Article I clearly stipulates that all types of pathogens and toxins, whatever their origin or method of production, i.e. including genetically modified microorganisms, are covered by the scope of the BWC. This understanding has been confirmed by successive Review Conferences, during which the implementation of the convention was being reviewed by its member states. One point of contention that regularly came up during Review Conferences was the question of trade restrictions in the form of export controls. According to critics of export controls, such measures are in direct contravention to Article X of the BWC, which in its Paragraph 2 which establishes a cooperation norm and states that this Convention shall be implemented in manner designed to avoid hampering the economic or technological developments of States Parties to the Convention or international cooperation in the field of bacteriological (biological) activities.⁴ Proponents of export controls, in contrast, point out that these measures are just an expression of their intent to implement the non-transfer norm contained in the Convention's Article III, according to which States Parties are under the obligation not to transfer to any recipient whatsoever - directly or indirectly - any of the agents, toxins, weapons, equipment, or means of delivery specified in Article I of the Convention.

Export Controls and the Australia Group. If one looks a bit closer into the debate on export controls, one cannot avoid the impression that at least the most fundamental and dogmatic critics equate export controls with export denial. The criticism, however, has not been substantiated by states with concrete figures as to how big a trade volume has been denied to them. Even listing a set of instances in which exports were denied and end-uses were very obviously and unambiguously for peaceful applications was not possible for dogmatic export control critics.

This - as well as the fact that most states who are accused of withholding essential technologies and material from third world states are trading states who have a paramount interest in free, and not restricted trade - very much nurtures the suspicion that export controls are indeed misunderstood when they are portrayed as a means to implement a strategy of export denial. Rather, export controls on dual-use goods and equipment do have a variety of other functions: their primary goal is to ensure the civil application of exported commodities and services and to deter from using them in military BW-programs. To fulfill this function domestically, i.e., in the supplying state, export control measures have to be capable of identifying illegal exports and have to threaten to the potential exporter a level of punishment that exceeds any gain from such an illegal export. Although export controls on dual-use goods and equipment pursued in isolation from other non-proliferation measures cannot

prevent the acquisition of BW by a determined proliferant, they can slow down the procurement process and increase the proliferant's costs. When coordinated among supplier states, export controls provide a level playing field for potential suppliers in different states, thereby increasing the hurdles a proliferant has to take. Harmonized export controls make it more difficult to play one supplier against the other, since the individual exporters do not have to face comparative disadvantages because of unequal export control guidelines.

One very efficient undertaking to coordinate export controls on dual-use items is the Australia Group, which was founded in 1985 following an Australian initiative. The Group's original purpose was to constrain the trade in technologies and materials of chemical warfare. It was created in response to the rapid proliferation of chemical weapons, their repeated use in the Iran-Iraq war, and the limited progress in negotiations on the Chemical Weapons Convention (CWC). An additional, equally important function of the Group is the exchange of intelligence and other information concerning the procurement activities of suspected proliferants. Membership of the Group has doubled from the fifteen founding members to now 30 states, which also include states from the South like Argentina and South Korea.⁵

In 1990 Australia Group members agreed to expand their controls to cover BW agents and toxins, as well as dual-use equipment necessary for their production. In 1992 control lists were agreed upon which covered eighteen bacteria, four rickettsiae, 25 virii, and fourteen toxins. In addition, dual-use equipment like fermenters, centrifuges, aerosol chambers, and filter and freeze-drying equipment with certain technical specifications were subjected to controls.⁶

Reviewing and Strengthening the BWC. Dual-use export controls in general and the work of the Australia Group in particular was not only hotly contested during regular Review Conferences of the BWC, it also represents an important issue area in attempts to strengthen the BWC. Past activities with the aim of strengthening the BWC started in 1986, when during the Second BWC Review Conference four Confidence Building Measures (CBMS) were agreed upon. Another set of CBMs was added during the Third Review Conference in 1991. Neither set of CBMs covered the issue of dual-use exports or their controls. In addition, the Third Review Conference established a Group of Governmental Experts to identify and assess potential verification measures from a scientific and technical viewpoint (VEREX). Only when the Report of that Group was discussed during a Special Conference of the states parties to the BWC in September 1994, the question of trade restrictions and export controls entered center stage.⁷ It became apparent that a number of states - for a variety of reasons - were not too enthusiastic about the prospects of