

.b 2673575 (E)

CAL
EA
94M11
DOCS

E MATURING CONVENTIONAL ARMS TRANSFER AND PRODUCTION SYSTEM: IMPLICATIONS FOR PROLIFERATION CONTROL

By Dr. Keith Krause
York University



THE UNITED NATIONS REGISTER OF CONVENTIONAL ARMS: OPTIONS AND PROPOSALS FOR ENHANCEMENT AND FURTHER DEVELOPMENT

By Dr. Edward J. Laurance
Monterey Institute of International Studies

Research Report for the

Non-Proliferation, Arms Control and Disarmament Division
Department of Foreign Affairs and International Trade



September 1994



UNIVERSITÉ
YORK
UNIVERSITY



Monterey
Institute of
International
Studies

**THE MATURING CONVENTIONAL ARMS TRANSFER
AND PRODUCTION SYSTEM: IMPLICATIONS FOR
PROLIFERATION CONTROL**

**BY
DR. KEITH KRAUSE
CENTRE FOR INTERNATIONAL AND STRATEGIC STUDIES
YORK UNIVERSITY**



**THE UNITED NATIONS REGISTER OF
CONVENTIONAL ARMS:
OPTIONS AND PROPOSALS FOR ENHANCEMENT
AND FURTHER DEVELOPMENT**

**BY
DR. EDWARD J. LAURANCE
MONTEREY INSTITUTE OF INTERNATIONAL STUDIES**

FINAL REPORT

SEPTEMBER 1994

Dept. of External Affairs
Min. des Affaires extérieures

MAY 30 1995
MAI

RETURN TO DEPARTMENTAL LIBRARY
RETOURNER A LA BIBLIOTHEQUE DU MINISTERE

**COMPLETED FOR THE
NON-PROLIFERATION, ARMS CONTROL AND DISARMAMENT DIVISION,
DEPARTMENT OF FOREIGN AFFAIRS AND INTERNATIONAL TRADE**

4B-272-411

PREFACE

"Gun lobbies" in the United States and elsewhere have often admonished the general public with slogans such as "guns don't kill people, people do". While few would disagree with the inherent truth of that statement and most would reason that due attention should be paid to this second aspect of gun control, logic clearly supports the contention that such a focus of attention should not detract from the first. Both factors -- possession and intent -- deserve to be dealt seriously and in parallel.

A similar dichotomy exists when considering the non-proliferation aspects of arms control with respect to weapons of mass destruction (WMD) and conventional weapons. Using a higher level of both altruism and balance than is likely to be found in the gun control debate, Keith Krause reminds us that, in terms of non-proliferation, all of the estimated 23,000,000 war-related deaths since 1945 have been from the use of conventional not nuclear weapons. Nuclear weapons and their potentially cataclysmic effects will continue, of course, to warrant first priority on the non-proliferation agenda. At the same time, however, it is incumbent upon the international community to focus increased attention on coming to grips with the proliferation dangers posed by the uncontrolled, regional and worldwide acquisition and dissemination of conventional weaponry.

In examining the conventional weapons scenario to the end of this decade, Professor Krause has identified some of the significant factors likely to affect the development of control mechanisms. One generic problem is that advanced technologies in the non-WMD arena are becoming increasingly available indigenously or in markets outside of so-called "first tier" nations. Supply-side management in the future may simply not be good enough. The challenge for the remainder of this decade, therefore, is to demonstrate that proposed proliferation control mechanisms are of equal benefit and necessity in promoting the security interests of all parties.

Professor Krause, in his analysis relating to the maturing conventional arms transfer and production system, identifies one initial attempt by the international community to recognize and to meet the challenge posed by the proliferation of conventional weapons. That mechanism -- The United Nations Register of Conventional Arms -- is dealt with in considerable detail by Edward Laurance in the second paper.

Professor Laurance outlines the background relating to the Register and quantifies its success to date. He describes the success of the Register in initially reaching levels which surpassed what many of its supporters would have dared to hope.

He cautions, however, against an apparent "stand still" approach which seems to be gaining ground as the Arms Register enters its third year and he poses a question, still to be answered, as to whether the UN Register continues to represent a "step forward" or will be used increasingly as a "fall-back position". The future of this unique endeavour depends upon enhancing transparency in armaments in all its aspects. It is a question with which the United Nations General Assembly in its 49th and subsequent sessions will have to become more fully engaged.

This report represents the results of a research project conducted under the Department of Foreign Affairs' Verification Research Program. It is being shared with interested parties as part of a long-standing Canadian policy to make such research findings available to assist in negotiations and to promote a dialogue on these important issues. The views expressed herein are those of the authors and do not necessarily represent those of the Canadian Government.

The Maturing Conventional Arms Transfer and Production System: Implications for Proliferation Control

Keith Krause
Acting Director
Centre for International and Strategic Studies
York University*

Introduction

Since the advent of the nuclear age, the agenda of arms control has been divided between "weapons of mass destruction" and "conventional weapons." The former customarily includes nuclear, biological and chemical weapons, and their associated technologies. The latter has included everything else, from land mines and fighter aircraft, to futuristic technologies such as laser weapons, stealth technologies or electronic warfare capabilities.

Almost all of the international non-proliferation efforts (multilateral and bilateral) since 1945 have been focused on weapons of mass destruction. Almost all of the 23 million war-related deaths since 1945, however, have been from conventional weapons.¹ When one adds to this the dramatic increase in the sophistication and destructiveness of so-called "conventional weapons," it is difficult to explain this continued divergence in treatment between "weapons of mass destruction" and "conventional weapons" in the field of non-proliferation and arms control.

In recent years, especially since the end of the Cold War and 1991-92 Persian Gulf War, greater attention has been devoted to the control of conventional weapons proliferation. The central policy concern remains nuclear weapons and weapons of mass destruction, but recent progress in nuclear arms control, the completion of the Chemical Weapons Convention in 1992-93, the restructuring of Western and Eastern armed forces under the Conventional Forces in Europe Treaty, and the experience of the 1991 Gulf War, have all combined to move the issue of conventional weapons somewhat higher on the international agenda. Recent efforts would include the creation of the United Nations Register of Conventional Arms, the (now dormant) efforts of the Permanent-Five members of the Security Council to create a consultative mechanism concerning arms transfers (especially to the Middle East), the recently-adopted CSCE "principles governing conventional arms

* Research assistance for this paper was provided by Kenneth Boutin.

¹ Figure from Ruth Leger Sivard, *World Military and Social Expenditures 1993* (Washington, D.C.: World Priorities, 1993), 21.

transfers," and the many public statements and proposals for controlling the conventional arms trade.² It may be the case that this increased attention is merely the ephemeral product of the "window of opportunity" created by the Gulf War, but it is also true that the issue itself, whatever its profile on the international agenda, is not going to disappear.

This report provides an analytic overview of the patterns of proliferation of conventional weapons, the debates surrounding efforts to control the trade in weapons and weapons technologies, and the different approaches to the control and verification of conventional proliferation. It proceeds along the following outline:

- an overview of the "global arms transfer and production system" that highlights the motive forces that drive both producers and purchasers of weapons;
- an analysis of significant recent trends in the arms trade and arms production;
- a discussion of the implications of these trends for the control of conventional weapons proliferation;
- an assessment of specific measures (both proposed and hypothetical) to control conventional proliferation;
- a concluding discussion of a possible role for Canada in efforts to control conventional proliferation.

Patterns of Weapons Development, Production and Transfers

Since the first application of metallurgical and chemical knowledge to the development of cannon and gunpowder, arms have been produced and traded among states in certain kinds of patterns.³ Schematically, the "arms transfer and production" system has had five central characteristics, an understanding of which is important because it places current events in a context that helps us predict

² Since 1991, statements on the need for control have been made by the G-7, the NATO Foreign Ministers, the OAS, the CSCE, and the Commonwealth. A wide range of NGO activities (by such groups as the Federation of American Scientists, the Center for Defense Information, Human Rights Watch, the British American Security Information Council and the Arms Control Association) have been started or expanded since 1990. On the American policy response see President Bush's address to the Air Force Academy, 29 May 1991, and the accompanying *Middle East Arms Control Initiative*, fact sheet issued by the White House.

³ This account draws upon and simplifies the model presented in Keith Krause, *Arms and the State: Patterns of Military Production and Trade* (Cambridge: Cambridge University Press, 1992). See also Ed Laurance, *The International Arms Trade* (New York: Lexington Books, 1992); Robert Harkavy, *The Arms Trade and International Systems* (Cambridge, Mass.: Ballinger, 1975).

the likely path of short- and medium-term developments. These developments will either constrain, or provide the opportunities for, proposals to control conventional proliferation.

The first characteristic is that the system is driven by the *development of new (or revolutionary) military technologies* that create "gaps" in the capabilities of weapons possessed by states. These differentials can translate into battlefield superiority, even in cases of numerical inferiority, as was demonstrated during the 1990-91 Persian Gulf war. Examples of these innovations range from the dramatic (the development of rifled steel cannon, "Dreadnought" battleships, military jet aircraft, or nuclear weapons) to the mundane (improvements in avionics or weapons guidance, more efficient explosives). Attempts to close or eliminate these gaps, and to stay at or near the forefront of "modern" weapons technology, have been a major goal of national defence and security policies for centuries. This is the primary impetus behind both arms production and the arms trade.

Dominant centres of military innovation have always emerged in a small number of states (between one and four). These states, whether Britain, France and Germany during the Industrial Revolution, or the United States and the Soviet Union after 1945, are in any given period the largest producers of weapons, they possess the largest and most advanced research and development (R&D) establishments, and they have sizable domestic markets for the weapons they produce.⁴ This R&D capability and size of the domestic market ensure that these leading edge (*first-tier*) producers are able to push forward the frontiers of military technology, and are *not* as dependent upon exports to maintain a healthy defence industry as other producers. They are also, not surprisingly, usually global great powers or superpowers, and are the most concerned with maintaining their edge by protecting their lead in military technologies.

Behind the leading-edge states are ranged a *second tier* of arms producers, who have a strong enough industrial and technological-economic base to keep pace with advances in military technology, but not to lead it forward. In certain limited sectors, they can become innovators or specialists, but in general these states possess a much smaller domestic market and make limited investments in R&D. Their goal is to be able to build and adapt new weapons to their needs, and to maintain a relatively equal military and political status with the first tier states. Their economic and industrial infrastructure is usually comparable to that of the most advanced states, although the small size of their domestic arms markets make them more dependent upon exports. Because their competitive edge in exports is also

⁴ Of course, at different times military R&D has been primarily private, primarily public, or some combination of the two. See Maurice Pearton, *Diplomacy, War and Technology since 1830* (Lawrence: University Press of Kansas, 1984).

often small (unit costs are higher because of smaller production runs), they are also more often forced to trade technologies as well as weapons to their best customers.⁵

Behind these states lie a third tier of arms producers who are able only to copy or develop the most rudimentary or low-tech variations of any given weapons system. These weapons may be perfectly adequate for the range of threats these states may face, but they are seldom effective on the battlefield against a technologically superior opponent. Arms industries in these states are often highly export dependent (because of a small domestic market) or internationally uncompetitive (when the domestic market is large and the industry is protected), investments in R&D are very low, and production often occurs in an industrial "enclave," with few positive linkages or synergies to the rest of the economy.⁶ What is most important about third-tier producers, however, is their potential to upset or derail control arrangements (such as blanket supplier embargoes of combatants), with their aggressive pursuit of niche markets. An excellent example of this was given by the eight-year long Iran-Iraq war, during which one or both combatants laboured under embargo restrictions of varying severity. Ultimately, more than 50 states supplied weapons, parts, or military technologies to one or both sides, including prominent third-tier producers such as Brazil, North Korea, Egypt, Taiwan, Czechoslovakia and China.⁷

The final, and most important, element of the arms transfer and production system is its *evolutionary dynamic*. The arms trade exists because there are large differences in the capabilities of the weapons that are possessed by (or can be produced by) various states, and because these disparities matter in the competition for international power and influence. All participants in the system thus respond to different sets of incentives that push it forward. First tier states tend to invest in R&D, and are more willing to entertain restrictions on technology transfers in order to keep their leading position. Second-tier states attempt to acquire advanced technologies from the first-tier innovators, not only to "keep pace," but to copy or reproduce the successes of the innovators. For these states, access to technology is as important as access to weapons themselves. Behind them, the third tier states struggle to climb the international hierarchy, at first through weapons acquisitions and later through

⁵ Germany, France, Britain and Italy accounted for 39 percent of the total number of licensed and co-production agreements for weapons or military technologies that in place in 1992. The United States and Russia accounted for 38 and 7 percent of the total respectively, which is a lower percentage than their share of the total arms market. Stockholm International Peace Research Institute, *SIPRI Yearbook 1993: World Armaments and Disarmament* (Oxford: Oxford University Press, 1993), 483-518.

⁶ See, for a comprehensive case study, Patrice Franko-Jones, *The Brazilian Defense Industry* (Boulder: Westview, 1992).

⁷ The most complete list of suppliers is offered by Anthony Cordesman, *The Impact of Arms Transfers on the Iran/Iraq War* (London: Royal United Services Institute, 1987), 14, using State Department information.

attempts to spur indigenous arms production via military technology transfers. They tend to focus on technology transfers in the form of co-production or licensing agreements, access to patents and blueprints, and the reverse engineering of established designs.

What happens as a result of these various responses is something akin to the "product cycle." New or revolutionary technologies are rapidly improved and slowly diffused, as the techniques required to use them effectively or reproduce them are not widespread. But over time, the pace of innovation slows as the potential inherent in any technology is exhausted, and diffusion then moves more rapidly than innovation. Eventually, attention shifts to newer (and possibly radically different) technologies that drive the system in another cycle.

Of course, if investment in military R&D ceases, or becomes too costly, then these new technologies will be slow to appear. An illustration of this is provided by the slow pace of change in military technologies in the eighteenth and early nineteenth centuries: the "Brown Bess" was the standard British firearm from 1690 to 1840, and the field gun of 1840 was only slightly more sophisticated than artillery of the previous two centuries. Similarly, when continued improvements on existing technologies have no military utility, the pace of innovation will also slow. An example of this is the current ability of designers and engineers to build aircraft that are too manoeuvrable for pilots to fly, because of the stresses they place on human endurance.⁸

The evolution of the arms transfer and production system thus depends critically on the relationship between *rates of technological innovation and diffusion*. The two possible relationships have been captured by Figure 1. In both scenarios, innovation proceeds rapidly in the early phases of a new technology, and then slows over time as the innovative potential of a new technology is exhausted. What differs, however, is the rate of diffusion. In the first scenario, the rate of diffusion remains constant (a straight line), which means that it crosses the rate of innovation at point X. This does *not* mean that at this point both producers/innovators and recipients have equivalent military technology, but only that past time x, the gap between the weapons systems possessed by producers and recipients will slowly narrow, eventually reaching virtual equality. An example of this could be the diffusion of small arms and ammunition technology, primitive versions of which can now be produced virtually anywhere.

In the second scenario, the rate of innovation, although slowed, remains *above* the rate of diffusion at all points. This scenario maintains the technology gap (and the lead of innovative producers), but

⁸ For an excellent overview of military technological evolution see William MacNeill, *The Pursuit of Power* (Oxford: Basil Blackwell, 1983).

it requires active intervention on the part of leading producers to slow the rate of diffusion of military technologies (via some form of export controls). Such intervention will, in principle, increase in importance after point Y, when the rate of innovation (eg: of military R&D) has slowed to a point where first-tier producers would become conscious of the possible erosion of their technological lead. This could describe the relationship between the United States and the Soviet Union during the Cold War, when the efforts of the CoCom (Coordinating Committee for Multilateral Strategic Export Controls) appear to have at least slowed the erosion of the West's lead in military technologies.

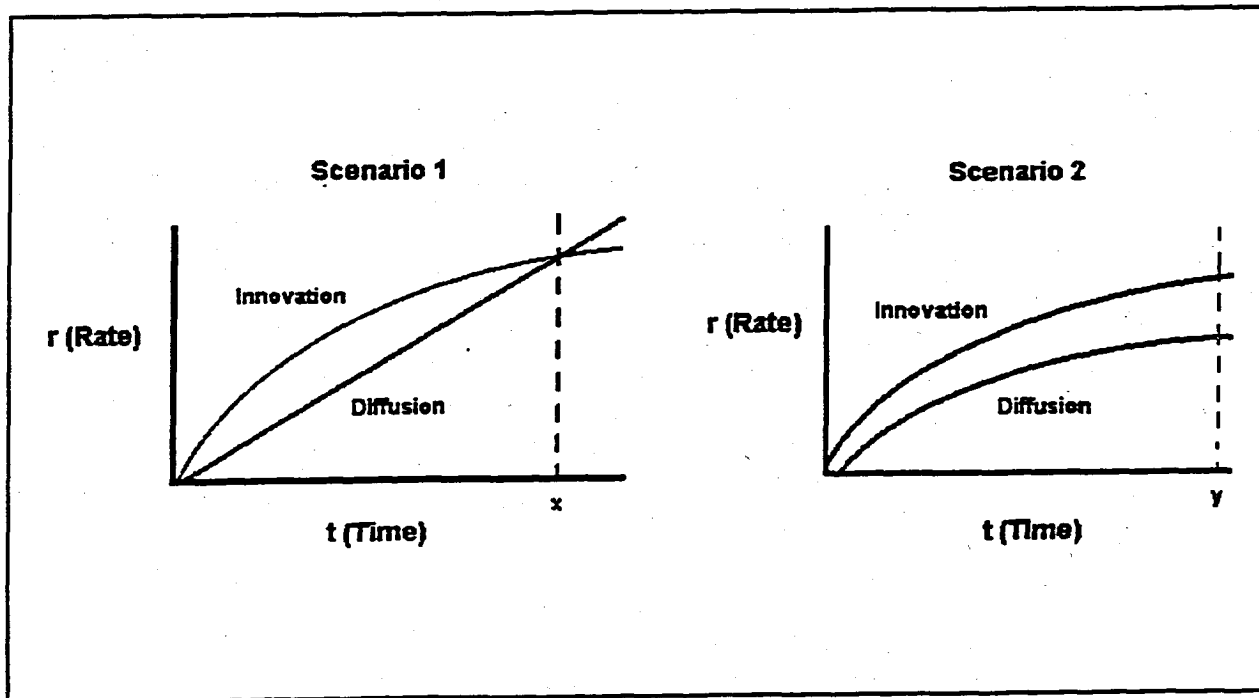
The actual structure of the arms transfer and production system is more complex than this schematic sketch would suggest, and crucial variations are evident in different areas of weapons technology. There also exist linkages between various levels of producers, which sometimes permit advanced technologies (such as missiles or fire control systems) to be incorporated into relatively primitive platforms (such as armoured vehicles or aircraft). But this analysis highlights the need to think about the possibilities for controlling the proliferation of conventional weapons and their technologies in terms of two key questions:

- *which states or groups of states are able to produce the weapons or technologies that pose a proliferation danger, now and in the immediate future?*
- *where is the weapons system or technology in question located in its "product cycle," and how does this affect the possibilities for control?*⁹

⁹ This is analogous to the concept of "technology maturity," which is discussed below. See James Keeley, "Weapons of Mass Destruction as Mature Technologies: Implications for Control, Verification and Confidence-Building," paper prepared for a Non-Proliferation Verification workshop sponsored by the Verification Research Unit, Department of External Affairs and International Trade Canada, 28 November 1993.

Figure I

The Innovation and Diffusion of Military Technology:
Two Scenarios



The Evolution of the System since 1945

With this schematic model, developments since 1945 can be quickly sketched. On the producer side, the United States and Soviet Union rapidly emerged as the dominant "first tier" producers. They virtually monopolized global military R&D spending, together accounting for approximately 80 percent in the 1980s, and made most of the major technological innovations. They produced two-thirds of the world's total of weapons (the vast majority of which were for domestic consumption) and captured a share of the global arms export market that, between 1960 and 1990, never dropped below 50 percent.¹⁰ In the mid-1980s, the two superpowers produced around \$175-200 billion annually in weapons, and exported on average about \$35 billion worth of arms each year (hence less than 20 percent of their production was exported). Despite the massive political and economic transformations after the end of the Cold War, this highlights the fact that the future pattern of proliferation of conventional weapons will be largely determined by the policies pursued by these two producers.

The post-1945 "second tier" producers were close to the United States and Soviet Union in technological terms, but far behind in size and scope. The major European arms producers (West Germany, France and Britain, and to a lesser extent Italy, Czechoslovakia and Poland) together did not produce more than \$50-60 billion worth of arms annually throughout the 1980s, and they accounted for about 30-40 percent of global arms exports (around \$15 billion a year). They depended much more heavily, however, upon arms exports to realize economies of scale, or merely to keep their national industries alive: the norm was for between 25 and 40 percent of their production of major weapons systems to be exported, and this figure steadily increased over time.¹¹ Between them, they produced virtually the entire range of modern weapons, with the exception of the most advanced items, such as stealth and cruise technologies.

Production in the developing world (the "third tier") was insignificant until the mid-1970s, when arms industries in states such as India, Israel and South Africa began producing simple versions of major weapons systems at relatively low levels of sophistication. More states joined the producer club over time, but only a few of them made significant investments in R&D, or had a large enough domestic

¹⁰ Figures in this section, except where noted, from Krause, *Arms and the State*, Tables 8, 9, 10.

¹¹ In the late 1980s, the French aircraft producer Dassault estimated that it needed to produce 40 planes a year to maintain its production teams; this meant (given French government orders) that at least 25 percent of production needs to be exported. Sweden originally estimated that one-third of the production of its new generation *Gripen* fighter needed to be exported, and cost estimates for the French *Rafale* assume that one-half of production will be exported. *Aviation Week and Space Technology*, 9 January 1989; Andrew Moravcsik, "The European Arms Industry at the Crossroads," *Survival*, 32:1 (January/February 1990), 82n.

procurement base to make advanced weapons production even conceivable (Israel, India and China being the main exceptions). The much-vaunted "expansion" of these producers in the 1980s (with Brazil being the most widely publicized case) was an aberration, mostly driven by demand from the eight-year long Iran-Iraq war, which was fought by two cash-rich states labouring under arms embargo restrictions (at various times).¹² It was also, in global terms, not very important, as these states collectively never produced more than 10 percent of the world's total arms production (ie: around \$20-25 billion worth of weapons). The most important third tier producers (in declining order) have been: China, India, Israel, the former Yugoslavia, South Africa, Brazil and South Korea.

Table I provides an overview of the position of the major producers and exporters in the late 1980s and early 1990s, as measured by several indices. It highlights the dominance of the two superpowers, the large gap between them and second tier industrialized producers, and the relatively small role of third-tier states. Table II describes the pattern of arms exports by the major suppliers for the period from 1963 to 1991, in both dollar and percentage terms. The dominance of the United States and Soviet Union in exports is apparent, as is the relatively large share of the second-tier states. Finally, the slow rise in importance of third-tier producers ("developing" in the table) is also clear.

The recipient side of the arms transfer equation is more diverse and complex. Table III summarizes the regional distribution of arms imports over the same time period. It highlights the shift from the dominance of NATO Europe and the Warsaw Pact (which accounted for almost 40 percent of global arms imports in 1963-67), to the developing world (which accounted for three-quarters of arms imports since 1975), and especially to the Middle East. In the 1980s, for example, the Middle East accounted for almost 40 percent of global arms imports, although it has less than five percent of the world's population! At the end of the 1980s, five of the top ten arms recipient states were in the Middle East, and they accounted alone for roughly one-quarter of total sales.

¹² See Keith Krause, "Transferts d'armements et gestion des conflits: les cas de la guerre Iran-Irak," *Cultures et Conflits*, no. 4, (hiver 1991-92), 13-40.

Table I

**Major Arms Producing and Exporting States,
Selected Indicators, early 1990s**

Country	Defence Spending, 1991 (million US dollars)	Arms Exports, 1991 (million US dollars)	Arms Production (million US dollars)	Percentage of Production Exported	Military R&D Spending (million US dollars)
United States	280,300	9,600	79,400	11.8	38,200
USSR/Russia	260,000	6,600	106,000	6.2	28,000
China	51,040	925	6,029	15.3	6,124
Britain	43,200	3,700	11,300	32.7	4,199
France	42,430	1,100	11,100	9.9	5,290
Germany	39,520	1,300	5,200	25.0	1,540
Italy	24,340	100	3,900	2.6	395
Sweden	6,432	20	1,600	1.3	527
Czechoslovakia	2,804	270	379	71.2	--
Poland	7,362	90	277	32.5	30
Israel	4,992	380	837	45.4	n.a.
India	7,189	0	2,870	0.0	250
South Korea	10,580	30	903	3.0	70

Notes to this table are provided as Appendix I.

Table II

Global Arms Deliveries, 1963-88, four year averages

(Million constant 1988 U.S. dollars)

Country	1963-66	1967-70	1971-74	1975-78	1979-82	1983-86	1987-90	1991
United States	4,842	8,575	10,751	11,039	10,099	11,885	12,037	8,465
Soviet Union	4,415	4,614	8,312	12,951	23,978	21,339	19,100	5,820
France	481	507	1,450	2,512	4,202	4,833	2,477	970
Britain	557	402	1,071	1,613	2,707	1,705	4,531	3,263
Germany ¹	360	329	475	1,373	1,730	1,838	1,206	1,146
Italy	74	76	295	817	1,284	1,067	311	88
Czechoslovakia	449	379	531	1,161	1,167	1,250	822	238
Poland	412	445	443	856	1,125	1,304	745	79
Other Industrial	444	565	1,010	1,859	2,369	2,538	2,562	688
Other E. Europe	22	46	240	370	997	1,634	899	97
China	223	491	916	280	680	1,535	2,141	816
Developing	310	48	156	1,448	2,961	3,044	5,417	1,658
World	12,589	16,475	25,649	36,282	53,297	53,972	49,544	22,512

Percentage Shares

Country	1963-66	1967-70	1971-74	1975-78	1979-82	1983-86	1987-90	1991
United States	38.5	52.0	41.9	30.4	18.9	22.0	24.3	37.6
Soviet Union	35.1	28.0	32.4	35.7	45.0	39.5	38.6	25.9
France	3.8	3.1	5.7	6.9	7.9	9.0	5.0	4.3
Britain	4.4	2.4	4.2	4.4	5.1	3.2	9.1	14.5
Germany ¹	2.9	2.0	1.9	3.8	3.2	3.4	2.4	5.1
Italy	0.6	0.5	1.1	2.3	2.4	2.0	0.6	0.4
Czechoslovakia	3.6	2.3	2.1	3.2	2.2	2.3	1.7	1.1
Poland	3.3	2.7	1.7	2.4	2.1	2.4	1.5	0.4
Other Industrial	3.5	3.4	3.9	5.1	4.4	4.7	5.2	3.1
Other E. Europe	0.2	0.3	0.9	1.0	1.9	3.0	1.8	0.4
China	1.8	3.0	3.6	0.8	1.3	2.8	4.3	3.6
Developing	2.5	0.3	0.6	4.0	5.6	5.6	10.9	7.4

¹ Germany is West Germany until 1991, when it refers to united Germany.

Derived from: United States Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers* (Washington: Arms Control and Disarmament Agency, various years).

Table III

**Regional Distribution of Arms Imports,
1963-1991 (percentage shares)**

Years	1963-67	1968-72	1973-77	1978-82	1983-87	1987-91	(% popul. 1982)
Africa	4.2	3.6	11.3	18.7	12.3	7.8	(9.8)
East Asia	28.7	34.6	15.6	10.7	11.5	12.7	(35.1)
Latin America	3.1	3.6	4.8	6.8	7.4	5.9	(8.1)
Middle East	9.2	16.6	33.6	37.5	37.8	34.7	(3.1)
South Asia	6.8	4.3	4.0	3.9	7.3	12.7	(20.4)
North America	3.0	3.5	2.0	1.7	1.5	4.9	(5.6)
Oceania	2.0	1.4	0.9	1.0	1.5	1.5	(0.5)
NATO (Eur.)	20.3	18.3	10.2	8.7	7.4	12.0	(7.1)
Warsaw Pact	19.1	11.2	14.7	8.3	10.4	6.0	(8.2)
Other Europe	3.6	2.7	2.8	2.7	2.4	1.6	(2.0)
Developed	41.7	28.9	25.7	19.5	20.9	22.4	(23.1)
Developing	58.3	71.1	74.3	80.5	79.1	77.5	(76.3)

Derived from: ACDA, *World Military Expenditures and Arms Transfers*, various years.

Note: Regions are classified as follows:

Oceania: Australia, New Zealand, Fiji, Papua-New Guinea.

Africa: does not include Egypt.

Middle East: Egypt to the Persian Gulf, Iran and Cyprus.

Latin America: Mexico south, all Caribbean states.

North America: Canada and the U.S.

South Asia: Afghanistan, India, Pakistan, Nepal, Bangladesh, Sri Lanka.

East Asia: Mongolia, both Koreas, both Chinas, Japan and from Burma to Indonesia.

Other Europe: Albania, Austria, Finland, Ireland, Malta, Spain, Sweden, Switzerland, Yugoslavia.

Developed: all of NATO, except Greece and Turkey; all of the Warsaw Pact except Bulgaria; Japan, Australia, New Zealand, Finland, Austria, Ireland, Sweden and Switzerland.

Developing: all others.

Three other developments since 1945 that are not captured by the figures presented above deserve to be highlighted: the changing relationship between suppliers and recipients, the increased sophistication of the weapons transferred, and the "maturation" of several post-1945 military technologies.

The pattern and nature of relationships between suppliers and recipients has changed dramatically over the past three decades. Data on this has been summarized in Table IV, which measures the shifting patterns of dependence of the top twenty-five weapons recipients (who together account for the vast majority of the arms transferred). Between 1964 and 1973, recipient states depended almost exclusively upon one or two suppliers for most of their major weapons systems. Only one of the top twenty-five recipients obtained no more than half of its weapons from one source. In the late 1970s, however, this dependence declined as the major recipients diversified their sources of arms supply. Only six of them obtained almost all of their weapons (90 percent or more) from one source. But the late 1980s and early 1990s, however, witnessed a return to almost the identical pattern of dependence that was manifested twenty-five years earlier! Today, almost half of the top recipients depend upon one supplier for almost all of their weapons. Obviously, the dependence of specific states upon particular suppliers can vary dramatically according to the weapons systems, but the overall pattern suggests that the ability of a few supplier states to control the arms market, and restrict the transfer of particular weapons or technologies, has actually *increased* in recent years. The most likely explanation for this is three-fold:

- the dramatic decline of the Soviet Union/Russia has eliminated the primary alternative source of weapons for Third World states who depended upon concessionary transfers;
- the increased commercialization of the market has made smaller industrialized producers uncompetitive, and pushed purchasers towards the United States (this is confirmed by the data in Table II);
- the operation of weapons systems from multiple suppliers proved to be inefficient, and created great problems for inter-operability and maintenance.

Table IV
Degree of Dependence
of the Top Twenty-Five Arms Recipients

	1964-73	1978-82	1987-91
Sole	12	6	11
Predominant	12	11	11
Multiple	1	8	3
Total	25	25	25

Note: A "sole" supplier provides 90 percent of a client's arms, a "predominant" supplier more than 50 percent of them, and "multiple" suppliers less than 50 percent for any one supplier.

Derived from: US Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers*, various years.

Table V
Numbers of Third World States with Selected Weapons Systems, 1950-1993

Weapons System	Year						
	1950	1960	1970	1980	1985	1990	1993
Supersonic Aircraft	n.a.	1	28	55	55	61	66
Missiles	n.a.	6	25	68	71	75	81
Armoured Vehicles	1	38	72	99	102	102	105
Main Battle Tanks	n.a.	32	39	n.a.	62	57	64
Modern Warships	4	26	56	79	81	80	79

Derived from: Edward Kolodziej, *Making and Marketing Arms: The French Experience and Its Implications for the International System* (Princeton: Princeton University Press, 1987), 183; Michael Brzoska and Thomas Ohlson, *Arms Transfers to the Third World* (Oxford: Oxford University Press, 1987), 12; International Institute for Strategic Studies, *The Military Balance* (London: IISS, various years).

The second noteworthy feature is the increasing sophistication of the weapons transferred, both in absolute and relative terms. In absolute terms, the number of states with advanced systems has been steadily increasing, as the data in Table V demonstrate. By the early 1980s, supersonic aircraft, main battle tanks and simple missiles were widely distributed in the developing world. Obviously, in relative terms the sophistication of these items was not at the forefront of military technology, but the destructive force accumulated in these arsenals was historically unparalleled. Since the late-1970s, the most privileged clients of the two superpowers have been given access to many of the most advanced weapons systems that were available. The production lines for the American F-14 and F-16 were shared with foreign clients, the Soviet Union delivered the MiG-27 as it entered its own service, and Egypt received the *Mirage 2000* as French forces did.¹³ This trend continues: in the early 1990s in the Middle East, for example, the Russians have sold MiG-29s to Iran, the Americans have sold the M1-A2 tank to Kuwait and Saudi Arabia and F-18s to Kuwait, and France has agreed to sell the United Arab Emirates the same version of the *Leclerc* tanks that will enter service with French forces.¹⁴

The final feature is the "maturation" of several important post-1945 military technologies and the changing pace of technological innovation. This is difficult to quantify, but a large proportion of the military technologies that are of proliferation concern can be classed as "mature technologies." The main characteristics of mature technologies are that:

- the scientific and technical knowledge is in the public realm;
- barriers to production are low (beginning producers can produce primitive versions of particular systems);
- the components necessary for various steps in the production process are widely available from many different sources, and are embedded in civilian industry (ie: dual-use).¹⁵

The best recent example of this was the Iraqi chemical weapons program, details of which were uncovered by the UNSCOM inspections. Although the program was poorly organized, and suffered from "poor quality nerve agents, badly designed munitions, production problems, and cavalier attitudes

¹³ Jacques Gansler, *The Defense Industry* (Cambridge, Mass.: MIT Press, 1980), 204, 208, 312n; Gu Guan-Fu, 'Soviet arms sales and military aid policy to the Third World,' *Osteuropa Wirtschaft*, 29:1 (März 1984), 52. India and Syria received the MiG-29, as it entered service with Soviet forces. *Air International*, May 1990.

¹⁴ For details see SIPRI, *1993 Yearbook*, 483-518.

¹⁵ Keeley, *passim*.

to safety," it did succeed in producing large quantities of deadly agents that were used.¹⁶ Simple artillery systems, light weapons, armoured vehicles, and chemical weapons technologies would be close to "technological maturity"; short-range missiles, light jet aircraft, primitive biological weapons, and crude nuclear weapons (of early designs) are somewhat mature; and long-range ballistic missiles, advanced fighter aircraft, cruise missiles and stealth technologies are far from technological maturity. The implications for non-proliferation are obvious. It is considerably more difficult to control the proliferation of mature technologies, for which the production techniques and basic scientific and technical knowledge are well-understood and widely available.

Recent Developments and Significant Trends in Conventional Arms Transfers and Production

The end of the Cold War marked a transformation of some aspects of global arms production and transfers, although several of the fundamental elements of the system remained in place. This section will sketch the significant short- and medium-term trends in conventional arms production and transfers, thus setting the stage for a discussion of the implications of this for proliferation control policies and options.

Short-Term Trends

Three specific short-term developments have been catalyzed by the end of the Cold War. The first has been a rapid and dramatic decline in demand for arms from states who were privileged clients of the superpowers and who obtained weapons on concessional terms. The changes that accompanied the end of the Cold War resulted in the curtailing of arms imports to several regional conflict zones (Nicaragua, Angola, Ethiopia, Iraq, Cambodia), the elimination of concessional terms for Soviet and some American weapons clients (this affected primarily India, Pakistan, North Korea, Algeria, Vietnam and Syria), and the drop in arms procurement by Eastern European/Warsaw Pact states (Hungary, Poland, Czechoslovakia, East Germany, Rumania and Bulgaria). Together, the seventeen states in these three groups accounted for 36 percent of total arms imports in 1987, but only 9.5 percent in 1991. Hence these states accounted for more than one-half of the decline in the arms trade experienced between 1987 and 1991, and their greatly diminished role in the arms market is unlikely to be replaced by new consumers in the immediate future.

¹⁶ John Walker, "The UNSCOM Experience: Orientation," in Steven Mataija and J. Marshall Beier, eds., *Multilateral Verification and the Post-Gulf Environment: Learning from the UNSCOM Experience* (Toronto: Centre for International and Strategic Studies, 1992), 91.

The second, and most dramatic development, the collapse of the Soviet Union and the Warsaw Pact, also had a great short-term impact on the supply side of the global arms market. The Soviet Union/Russia virtually disappeared as a major supplier of weapons by 1992, with its share of the market declining from more than one-third in the late 1980s to about one-quarter in 1991, to less than 10 percent in 1992.¹⁷ It was once believed that Russian arms would remain attractive, especially to poorer states, because at a certain price whatever the Russians have to sell would be competitive in hard currency terms. It is apparent, however, that the problem is more structural in nature: potential customers do not trust that a stable, reliable ongoing supply relationship can be established with Russia, and this is a critical impediment to sales of advanced weapons platforms.¹⁸ The long-term significance of this development is, however, much less clear, and may be considerably less dramatic, if economic reform can create a stable, competitive market in Russia as a base for international exports (of civilian as well as military goods).

The third short-term factor has been the global economic recession, as the economic constraints on potential purchasers of weapons have seriously curtailed arms purchases and military spending throughout the developing world, especially in the Middle East. Arms *agreements* to the Middle East in the 1989-92 period were only \$62.1 billion, a decline of more than one-third from the level of \$94.3 billion for the 1985-88 period. The figures for weapons *deliveries* have an identical pattern: they declined from \$86.9 billion between 1985-88 to \$52.2 billion between 1989-92.¹⁹ At the same time, arms purchases by East Asian states have increased in importance, although their volume has not replaced (nor will it replace) the decline in the Middle Eastern markets.²⁰ The overall result of the recession has been an increased concentration of the market among only a few major recipients: by 1992, only about 25 states were active recipients of weapons.

As a result of these three short-term trends, global arms transfers have dropped from more than \$50 billion in 1987 (the agreed-upon high point) to no more than \$22.5 billion in 1991 (in 1988 dollars).

¹⁷ 1992 figures for Russia are from Richard Grimmert, *Conventional Arms Transfers to the Third World, 1985-1992*, Congressional Research Service, report for Congress, 93-656F (Washington, D.C.: Congressional Research Service, 19 July 1993), 7. He reports the Russian share of transfers to the Third World at 5.4 percent in 1992.

¹⁸ See Michael Brzoska and Frederic Pearson, "Developments in the Global Supply of Arms: Opportunity and Motivation," *The Annals of the American Academy of Political and Social Science*, (forthcoming, September 1994).

¹⁹ From Grimmert, 57, 68. On the Middle East see Keith Krause, "Middle Eastern Arms Recipients in the Post-Cold War World," *The Annals of the American Academy of Political and Social Science*, (forthcoming, September 1994).

²⁰ On Asian weapons acquisitions see Desmond Ball, "Arms and Affluence: Military Acquisitions in the Asia-Pacific Region," *International Security*, 18:3 (Winter 1993/94), 78-112; Michael Klare, "The Next Great Arms Race," *Foreign Affairs*, 72:3 (Summer 1993), 136-152.

Although different sources present the data differently, all agree that the decline has been in the order of 50 percent in five years. There is some evidence, however, that new stable levels are close to being reached, and that the precipitous declines of the past five years will not continue. Perhaps more importantly, these short-term trends may not be entirely durable: the global recession will someday end, regional conflicts in different parts of the world may flare up, and Russia will assume a more stable and potentially more active (if smaller) role in the system. Durable changes will only occur if some of these short-term trends are reinforced by medium- and long-term changes in the arms transfer and production system.

Medium-Term Changes

The medium-term situation for weapons proliferation and the arms trade is somewhat more complex, in part because it depends on developments in arms production in major states. Currently the major arms producers are engaged in a massive down-sizing and restructuring of their defence industries. Arms industries in the United States, for example, will lose between 500,000 and one million jobs between 1990 and 1995. This represents a cut of up to one-third in the total arms production job base.²¹ A similar, or even more severe, picture is presented in Europe: employment in the French arms industry will decline from 283,000 to around 200,000, employment in the Czech and Slovak arms industry has fallen from 72,000 in 1987 to a projected level of 22,000 by the mid-1990s, and Western European arms industries as a whole may lose 700,000 of a total of 1.04 million jobs.²² The most dramatic declines will occur in Russia: at its height the Soviet Union had approximately eight million people employed in arms production (and a further 1.7 million engaged in military R&D), and military production accounted for up to 16 percent of its industrial output. Whatever the success of the market reforms currently under way, the defence industry is engaged in a "rapid and brutal downsizing."²³

Weapons production is thus falling by about 5-6 percent a year, and is likely to do so throughout the mid-1990s. A simple projection based on existing trends and recent changes in defence spending suggest that production will stabilize at around one-half to two-thirds of the 1980s levels, to around

²¹ Details and various estimates given in SIPRI, *1992 Yearbook*, 365-369.

²² SIPRI, *1993 Yearbook*, 432; Herbert Wulf, ed., *Arms Industry Limited* (Oxford: Oxford University Press, 1993). This represents the same scale of job loss as was experienced by the European steel industry in the 1970s and early 1980s.

²³ Figures from Julian Cooper, "The Soviet Union and the Successor Republics," in Wulf, ed., 88-89; Julian Cooper, cited in Ian Anthony, "Current Trends and Developments in the Arms Trade," *The Annals of the American Academy of Political and Social Science*, (forthcoming, September 1994).

150-180 billion dollars a year (in 1988 dollars). These reductions in production will likely then more or less match the already-evident reduction in the global arms trade.

The most interesting medium-term developments, however, are not captured by overall statistics on arms production and transfers. Three of them are of special importance:

- the changed rate of technological innovation;
- the changing relationship between civilian and military technologies;
- specialization in the arms export market, and the emergence of "internationalized" forms of arms production.

The changing pace of technological innovation is captured best through the amount of resources devoted to military R&D. All things being equal, if the unit cost of weapons increases faster than procurement budgets, or if the resources devoted to military R&D decline, then the pace of innovation will slow. Worldwide annual military R&D spending in the mid-1980s was between 110 and 130 billion U.S. dollars, or about 10-15 percent of global military spending. But although military spending has slowly started to decline in real terms since the end of the Cold War (roughly 25 percent since 1989, mostly in 1992 and 1993), R&D budgets have been relatively insulated from these cuts.²⁴ And although procurement budgets have in most countries been slashed dramatically (to ten percent of 1990 levels in the case of Russia!), the share of R&D in total military spending has actually increased in many states. This suggests that most advanced arms producers are at least attempting to maintain their place in the global military hierarchy. At the same time, however, the unit cost of weapons has continued to increase relentlessly, with one estimate placing it at about five percent per year in real terms.²⁵ The price tag on the American B-2 bomber, for example, has now reached \$750 million, and only 20 will be procured.²⁶ Hence even if R&D budgets remain constant, the rate of innovation will be slowed, or will increasingly be concentrated in the "first tier" - the United States - or will shift to new centres such as Japan.

²⁴ The most recent figures for U.S. R&D spending (1992) show no decline in current dollar terms from previous levels; French and British spending fell modestly, and the Russian situation was impossible to interpret with certainty. SIPRI, *1993 Yearbook*, 346, 374.

²⁵ Jacques Gansler, *The Defense Industry* (Cambridge, Mass.: MIT Press, 1980), 83. This rate of increase doubles the cost of a weapons system in 13 years. See also Norman Augustine and Kenneth Adelman, *The Defense Revolution* (San Francisco: Institute for Contemporary Studies, 1990), which places the doubling time at ten years.

²⁶ The original order was for 132 planes at \$500 million each. Some reports put the per-plane cost at more than \$2 billion. See Joseph Romm, "Laid Waste by Weapons Lust," *Bulletin of the Atomic Scientists*, 48:8 (1992), 15-23.

The changing relationship between civilian and military technologies is somewhat more difficult to specify, although it is usually characterized as a shift from "spin-off" to "spin-on". This describes the move from an environment in which military R&D was the driving engine of research in an advanced industrial economy, which "spun-off" civilian innovations (ranging from computers and micro-electronics, to composite materials); to an economy in which civilian innovation represents the leading edge, and military innovation is "spun-on" from such things as developments in computer software or electronics. Only anecdotal evidence for this is available, but it strongly confirms this argument national procurement programs are increasingly adopting "civilian" standards for production (in part to lower costs), and the vast array of research that the military subsidized in the past is being reduced. The implication of this is that investments in military R&D will increasingly be seen by governments as being "unproductive," unless they address immediate and pressing security threats or contribute directly to national competitiveness and economic security.

Finally, the response of some producers to the increased competitiveness of the global arms market has been to specialize in particular niches of the arms export market, and to develop global or international production networks that offer economies of scale and that increase the size of the market for the weapons system in question. The United States now dominates the market in advanced combat aircraft, and specific European producers are emerging as the major suppliers of short-range surface-to-air missiles, light armoured vehicles, fast attack craft and jet trainer aircraft. These emerging market specializations will make two or three states crucial for the control of certain advanced technologies or systems. The effort towards "internationalized" arms production has been most prominent among West European producers, who have launched a wide range of collaborative production efforts, both among themselves and with third tier states. Most significant among these are the *Tornado* (Germany, Britain and Italy) and *Eurofighter* (Britain, Spain and Italy) combat aircraft programs, the *AMX* fighter (Italy and Brazil), and various products of the *Euromissile* consortium (France and Germany). Projects for helicopters, frigates, radars and military electronics have also been undertaken.²⁷ The implications of collaborative production among first and second tier producers for controlling proliferation are mixed. On the negative side, export controls are weakened by the "lowest common denominator" principle: exports are made under the auspices of

²⁷ The literature on this is vast. See, *inter alia*, Elisabeth Sköns, "Western Europe: Internationalization of the Arms Industry," in Wulf, ed., 160-190; Ian Anthony, Agnès Courades Allebeck and Herbert Wulf, *West European Arms Production: Structural Changes in the New Political Environment* (Stockholm: Stockholm International Peace Research Institute, 1990); Moravcsik, 65-85; Michael Brzoska, *The Structure of Arms Production in Western Europe beyond 1992*, occasional paper 26 (Hamburg: Centre for the Study of Wars, Armaments and Development, 1989); Martyn Bittleston, *Co-operation or Competition? Defence Procurement Options for the 1990s*, Adelphi Paper 250 (London: International Institute for Strategic Studies, 1990); Peter Lock, *Towards a European Arms Industry*, occasional paper 27 (Hamburg: Centre for the Study of Wars, Armaments and Development, 1989); Terrell Covington et al., *A Review of European Arms Collaboration and Prospects for its Expansion under the Independent European Program Group*, RAND report N-2638-ACQ (Santa Monica: Rand Corporation, 1987).

the least restrictive member of the consortium. Thus the *Tornado* fighter could be exported by Britain to Saudi Arabia, although such a sale would likely not have been possible under German export controls (given the fate of various attempts to export *Leopard* tanks to Saudi Arabia). This problem of harmonization affects all multinational export control systems. On the positive side, collaborative projects lessen the pressures to export because of the larger captive market formed by the collaborating partners, reducing the economic sacrifices associated with restraint.

Cooperation with third-tier producers, however, poses greater challenges for controlling proliferation. Third-tier recipient/producers are today more able to insist on economic offsets, access to critical technologies, or joint production and technology transfers that will increase their ability to produce weapons (or components) in the near future. An excellent example of this is provided by the emerging Turkish arms industry, which has developed projects to manufacture an increasingly large number of components of the F-16, as well as armoured vehicles, light aircraft, helicopters, and multiple rocket systems.²³ It is even possible that after the American F-16 production line is shut down in the mid-1990s, Turkey will become a major supplier of parts, components or completed aircraft to existing clients for the F-16. A similar plan is in place for Egyptian production of the American M-1 tank. The implications for proliferation control that this contains are obvious: sophisticated technologies (and the ability to produce them) are more widely diffused, the number of potential suppliers of is increased, and the ability of the source producer to control the end-use of their own weapons platforms is further curtailed.

A Long-Term Transformation?

Despite these dramatic short- and medium-term changes, there is little reason to believe that the underlying factors that drive weapons proliferation and military build-ups have changed fundamentally. Regional conflict management processes are only active in some regions, and are likely to proceed fitfully, if at all. War and conflict in the developing world are not likely to diminish, and the accompanying demand for weapons will not disappear. In addition, if the "long recession" of the early 1990s only artificially suppressed demand, then improved economic conditions will dictate a resurgence (even if limited) in the demand for arms. Since arms procurement is directly tied to military spending, which is in turn linked to overall levels of wealth, the (slow) pace of economic development in the developing world will trigger a gradual process of military modernization and arms

²³ For details on the Turkish programme see Gülay Günlük-Senesen, "An Overview of the Arms Industry Modernization Programme in Turkey," in SIPRI, *1993 Yearbook*, 521-532.

acquisition.²⁹ Finally, in many states in the developing world the modernization and procurement of major weapons is proceeding along a twenty to thirty-year cycle. Those states which made major acquisitions of modern platforms throughout the 1970s and early 1980s will find that they require upgrading and replacement programs in the first decade of the next century, merely in order to maintain their existing arsenals. Although this may proceed over a long time frame, it does not reflect any fundamental shifts in the nature of the weapons proliferation and diffusion problem.

The final long-term factor that requires some mention is what analysts are calling the "military-technological revolution" (MTR).³⁰ It refers to the incorporation of revolutionary advances in electronics, artificial intelligence and computing, command and control systems, and materials technologies into modern weapons systems. Some of the weapons being planned or discussed include: smart conventional weapons (high single-shot kill ratio, intelligent guidance), stealthy platforms, extended range delivery systems, electronic warfare systems, or intelligent C³I systems. In its most radical formulation, the MTR would require a complete reorganization of the modern armed forces, into decentralized and autonomous high-tech forces with a cobweb command and control structure.

Obviously, this is of little immediate interest for controlling conventional proliferation, and such futuristic weapons stretch the meaning of "conventional" beyond all recognition. There are two issues that are important, however. First, if one acknowledges that the proliferation of these forthcoming weapons innovations could or would be destabilizing or dangerous, this would justify at least some current effort to create conventional non-proliferation regimes robust enough to form the basis for future efforts. Many early arms control agreements in the nuclear era (the Seabed and Outer Space treaties, in particular), were designed exactly in this fashion: to meet future anticipated threats. Second, many of the technologies of the MTR (such as computer hardware and software for avionics, missile guidance systems, battlefield command and control systems, or electronic warfare measures and counter-measures) can be treated as *components* of existing weapons platforms, and the transfer of these technologies themselves could pose a proliferation threat if used to dramatically improve the battlefield performance of aircraft or missiles.

²⁹ See Robert Looney, *Third-World Military Expenditures and Arms Production* (London: Macmillan, 1988); Robert McKinley, *Third World Military Expenditure: Determinants and Implications* (London: Pinter, 1989).

³⁰ Dan Gouré, "Is there a Military-Technical Revolution in America's Future?" *The Washington Quarterly*, 16:4 (1993), 175-192; Seth Carus, "Military Technology and the Arms Trade: Changes and their Impact," *The Annals of the American Academy of Political and Social Science*, (forthcoming, September 1994); Manuel de Landa, *War in the Age of Intelligent Machines* (New York: Zone Books, 1991).

Implications for the Control of Conventional Weapons Proliferation

The Pros and Cons of Efforts to Control Conventional Proliferation

The nature of the problem is now clear: conventional weapons are widely available and frequently used, they are legitimately possessed for self-defence, their export is economically attractive, and their control is extremely difficult to engineer. As the Australian Minister of Foreign Affairs and Trade said in 1991:

the international community has yet to come to grips with the problem posed by the huge volumes of conventional arms transfers. While agreements are in place or under negotiation to control or eliminate weapons of mass destruction, there is as yet no remotely comparable process for conventional weapons. We need to acknowledge openly the difficulties which stand in the way of conventional arms control; compared with weapons of mass destruction, they are relatively readily available; trade is well established and lucrative; and considerations of national sovereignty, and the legitimate responsibility of any government to ensure national security, mean that countries are reluctant to forgo the right to acquire conventional arms.³¹

But from this two diametrically opposing policy positions can be advocated. On one hand, pessimists can simply conclude that the obstacles to meaningful control are too great, and hence that policy attention should focus exclusively on weapons of mass destruction, which in any case pose imminent and pressing threats or problems in several areas.³² On the other, one can argue that conventional weapons should be brought, albeit slowly, into the arms control and non-proliferation arena.

There are essentially four arguments against devoting attention to conventional weapons under the rubric of "controlling proliferation." The first is that since no "zero" prohibition for control exists, agreement on "how much is enough" is much more difficult (if not impossible) to engineer than for weapons of mass destruction. Nuclear, chemical and biological weapons (and to a lesser extent missiles) are under a presumption that their possession is illegitimate, and that any spread beyond the existing possessors (in the case of nuclear weapons and some ballistic missiles) should be forestalled. The importance of "zero-based" controls in reaching agreements was highlighted by the process leading to the 1987 Intermediate Nuclear Forces (INF) treaty: any solution other than the "double zero" posed tremendous negotiation and verification difficulties. However, there are few areas of

³¹ Speech of Gareth Evans to the UN Conference on Disarmament Issues, Kyoto, Japan, 27 May 1991. Reprinted in SIPRI, *1992 Yearbook*, 291.

³² This was substantially the position advocated by the British Foreign Secretary, Douglas Hurd, in 1991. Cited in SIPRI, *1992 Yearbook*, 292.

existing conventional weapons in which such a "zero" norm could be developed, and the nearest equivalent (agreement not to deploy a new technology to a specific region) has been bedeviled with conceptual and practical problems. The absence of a roughly bipolar situation in most regional conflicts (and the overlapping nature of many conflicts), also means that "equality" or "parity" cannot be used as the basis for agreement either. One need only imagine how difficult it would be to reach agreement on the Conventional Forces in Europe (CFE) Treaty today, after the dissolution of the bloc structure that made it possible.

The second argument against efforts to control the proliferation of conventional weapons is that controls on conventional proliferation in some sense violate the legitimate right of states to build arsenals for self-defense, and to determine the composition of these arsenals. This central objection is raised by states in the South that perceive controls on the conventional arms trade (and especially on technology transfers) as an attempt by the North to deny them the same rights of self-defence as Northern states possess. It is also part of a larger anxiety concerning the evolving multilateral "peace and security activities" (in the UN and elsewhere) in which Southern states do not feel treated as partners, let alone as equal ones. This perception has been highlighted by Bosnian claims that the UN embargo against arms transfers to the former Yugoslavia has disadvantaged them in their fight against Serb forces.³³

The third argument is that since the dominant powers in the system are also major weapons exporters, and thus have an interest in exporting arms to maintain their arms industries, efforts at controlling proliferation will be self-defeating. Early efforts by the United States to control conventional arms transfers under President Carter, for example, failed in part because of the reluctance of European states to participate in the negotiations.³⁴ The more recent effort by the Permanent Five members of the Security Council to coordinate their transfers (in particular to the Middle East) was bedeviled not only by Chinese reluctance to participate (and by the Chinese withdrawal from the arrangement over American aircraft sales to Taiwan), but by a sense that American policy, especially in the Middle East, was not driven by any discernable restraint.³⁵ Agreements to transfer more than \$18 billion in American weapons to the region in 1990, and more

³³ This claim is being brought to the International Court of Justice.

³⁴ See Lawrence Franko, "Restraining Arms Exports to the Third World: Will Europe Agree?" *Survival*, 21:1 (1979), 14-25.

³⁵ For details on the Permanent Five initiative, see ACDA, *World Military Expenditures and Arms Transfers 1990*, 23-24; see also President Bush's address to the Air Force Academy, 29 May 1991 (and the accompanying White House fact sheet) unveiling his "comprehensive arms control policy for the Middle East." For details on American transfers to the Middle East since 1989 see Grimmett.

than \$13 billion in 1991 and 1992 respectively, reinforced this perception. Although arms transfers from all major suppliers (the P-5 plus Germany) may have declined since the late 1980s, there is no reason to think this has been the result of a conscious policy of restraint.

Finally, opponents of efforts to control the proliferation of conventional weapons point out that the high-level political attention required to build non-proliferation regimes is absent. Since the end of the Gulf war, the non-proliferation agenda has progressively narrowed to focus on dramatic and pressing threats: nuclear and chemical proliferation in Iraq as uncovered by the UNSCOM, implementation of the Chemical Weapons Convention; and the nuclear proliferation crisis on the Korean peninsula. The perception is that action on these fronts, and towards the indefinite extension or renewal of the Non-Proliferation Treaty, will preoccupy policy-makers for the foreseeable future, and hence that the less urgent and diffuse agenda of conventional weapons is not worth bothering with.

Proponents of bringing the spread of conventional weapons onto the proliferation agenda begin their response to these points by noting that none of the arguments adduced above (with the possible exception of the final one) provide any reason to conclude that all forms of control of conventional proliferation are impossible. The right of states to self-defence, for example, does not preclude regional discussions on arms control in the Middle East, discussions which will necessarily require the involvement of arms suppliers as guarantors. Similarly, the existence of a supplier interest in exporting weapons technology has not precluded arrangements such as the Missile Technology Control Regime (MTCR) to deal with particular technologies and weapons systems that pose direct and concrete threats. This observation leads directly into the arguments in support of bringing conventional weapons into non-proliferation discussions, of which there are five.

The first argument is that the proliferation of conventional and unconventional weapons is inextricably linked, especially in specific regional contexts. Efforts to stem proliferation of NBC weapons, therefore, cannot be advanced without some attention also being paid to the conventional side of the equation. This is most clear in the Middle East, where the Arab states have threatened not to ratify or abide by the CWC unless the Israeli nuclear arsenal is subject to negotiation and control. In turn, the Israeli nuclear arsenal is defended on the grounds that Israel suffers from a perceived conventional imbalance (at least in terms of personnel) in the region. A similar story applies to the Persian Gulf, where the Iranian pursuit of a nuclear program is starting to trigger regional fears. Perhaps more importantly, the line between conventional and unconventional weapons is extremely blurry in practice, and when advanced conventional weapons such as aircraft can be used as delivery systems for weapons of mass destruction, the justification for focusing control efforts only on the weapons themselves is weak. By this logic, the International Atomic Energy

Agency (IAEA) and the Non-Proliferation Treaty regime should focus only on controlling fissile material, not on the associated technologies require to build, test and deliver nuclear weapons.

The second argument is that conventional arms acquisitions consume more resources in the developing world than programs for weapons of mass destruction. Estimates are vague, but vastly more resources are devoted to building and maintaining conventional arsenals than to programs for weapons of mass destruction, especially in the developing world. Further, the Iraqi experience also demonstrates that a state has to be extremely wealthy, or extremely dedicated (or both), in order to advance very far towards building weapons of mass destruction.³⁶ This sort of effort can only be duplicated by a handful of states, and although the states in question are a major source of international concern (especially North Korea, Iran and Pakistan), the bulk of the conflicts and wars in the developing world in the next few years will almost certainly involve states that have nothing but conventional weapons.

In addition, it is also possible that measures to control weapons of mass destruction increase the desire of states to obtain sophisticated conventional weapons, creating a "balloon syndrome" whereby restraint in one area merely compels a bulge in another. The active chemical weapons programs of between 10 and 25 states in the early 1990s provide evidence for this: chemical weapons have proven attractive to many states in the developing world *not* because they are militarily useful or cost-efficient, but because they are "second-best" terror weapons, especially in light of the NPT regime.³⁷ Hence efforts to control weapons of mass destruction may paradoxically increase the threats faced by many states unless attention is paid to the conventional side of the arms dynamic.

This observation is closely connected with the fourth and fifth points: the "military technological revolution" is blurring the line of destructiveness between conventional and unconventional weapons, especially in regional conflicts, so as to make the distinction meaningless. The emergence of a highly-sophisticated "reconnaissance strike complex," points the way to a revolution in the destructiveness of armaments and warfare that makes the term "conventional" extremely misleading. Mass air-delivery fuel-air explosives, for example, "can cover an area over 1,000 feet long with blast pressures five times that of TNT...[that] mimics small nuclear explosions." Whether one focuses on accuracy, range, rates

³⁶ For details on the Iraqi weapons program see David Albright and Mark Hibbs, "Iraq's Nuclear Hide-and-Seek," *The Bulletin of the Atomic Scientists* (September 1991), 14-23; David Albright and Mark Hibbs, "Iraq's Bomb: Blueprints and Artifacts," *The Bulletin of the Atomic Scientists* (January/February 1992), 30-40.

³⁷ In 1992 the Director of the CIA testified that 20 countries are suspected of having or developing nuclear, biological or chemical weapons; a British Ministry of Defence White Paper also alleged that 20 states had chemical weapons programs. Various estimates of the number of states with chemical weapons programs are offered in SIPRI, *1990 Yearbook*, 111-2; SIPRI, *1993 Yearbook*, 268.

of fire, or destructiveness, all of these elements of high-tech weapons have "been enhanced to a degree that makes the weapons of today enormously more effective in kill power."³⁸ Although such weapons and technologies are now the preserve of only a few states, one must look beyond the next five to ten years: can the international community afford to let this problem grow, or should long-term work on controlling "non-weapons of mass destruction" begin in order to preempt the proliferation of some of these weapons?

Finally, given the increased involvement of multilateral (United Nations) and Canadian forces in peace and security operations in a range of regional conflict environments, the direct implications of a failure to address this emerging problem are clear. Multilateral forces may more frequently face (as the French did in the Persian Gulf) their own weapons on the battlefield. Even if they do not, the proliferation of more sophisticated weapons systems (precision-guided missiles, for example) could drastically alter the threat environment in which these forces would operate.

³⁸ Both quotes from Paul Walker, cited in Sivard, 18.

Figure II

Should Conventional Weapons be Part of a Non-Proliferation Policy Agenda?

CON

- no "zero" prohibition for control exists, as exists with weapons of mass destruction
- states have a legitimate right to build arsenals for self-defense, and to determine their composition
- dominant powers in the system are also major weapons exporters and have an interest in maintaining exports
- the high-level political attention required to build non-proliferation regimes is absent

PRO

- conventional and unconventional weapons are inextricably linked in the regional context
- conventional arms acquisitions consume more resources in the developing world than programs for weapons of mass destruction
- measures to control weapons of mass destruction increase the desire to obtain sophisticated conventional weapons
- the "military technological revolution" is blurring the line of destructiveness between conventional and unconventional weapons in regional conflicts
- the diffusion of advanced conventional weapons will increase the difficulties faced by multilateral peace and security operations

Specific Measures to Control Conventional Proliferation

A wide range of specific measures can be proposed to deal with various aspects of the problem of conventional proliferation. These can be broken into three categories: transparency measures, supply-side measures, and "mixed" (supply and demand side) measures. Transparency measures, in particular those that concentrate on the expansion of the UN register of Conventional Arms, are discussed in the companion report by Edward Laurance, and will not be discussed in this report. Pure "demand" side measures will also not be discussed, in part because these fall under the heading of "regional arms control" measures, and in part because arms suppliers will inevitably have to be involved in the development of such measures, to guarantee or enforce such agreements among weapons recipients (making these "mixed" measures).

The measures outlined below are not mutually exclusive, and the most credible and appropriate strategy will likely be a "basket approach," that incorporates different measures to deal with particular elements of the proliferation problem. It is unlikely, however, that these various measures can be "stitched together" into a comprehensive conventional non-proliferation regime, for several reasons.³⁹

- the vast differences in the regional scope of the problem make global measures difficult;
- the wide variety of weapons systems and technologies that could be dealt with make single approaches too complex;
- the shifting coalition of suppliers that would be needed for specific concrete measures work against a single umbrella regime;
- the potential for "negative linkage," where a failure to achieve progress in one area undermined the entire non-proliferation edifice, mitigates against a comprehensive approach.

On the other hand, some sort of unifying conceptual architecture to inform policy initiatives is probably essential. Such an approach is provided, for example, by the concept of "cooperative security" that has been elaborated in Ashton Carter's, William Perry's and John Steinbrunner's discussion of *A New Concept of Cooperative Security*.⁴⁰ Their suggested underlying principle to lie

³⁹ On various ways of integrating "export control" systems, see Leonard Spector and Virginia Foran, *Preventing Weapons Proliferation: Should the Regimes be Combined?*, a conference report of the 33rd Strategy for Peace and U.S. Foreign Policy Conference, October 1992, cited in Gary K. Bertsch and Richard T. Cupitt, "Non-Proliferation in the 1990s: Enhancing International Cooperation on Export Controls," *The Washington Quarterly*, 16:4 (1993), 38.

⁴⁰ (Washington: The Brookings Institution, 1992). William Perry is the Secretary of Defense in the Clinton Administration; Ashton Carter is the Assistant Secretary of Defence for Nuclear Security and Counter-Proliferation. It should be noted that this is *not* the same as the concept of "cooperative security" that has been elaborated and promoted

behind new multilateral security policies in the field of proliferation is "a commitment to regulate the size, technical composition, investment patterns, and operational practices of all military forces by mutual consent for mutual benefit."⁴¹ The implication is that conventional non-proliferation efforts will be embedded in a broader process, and that "arms control" itself will be transformed in two ways. First, whatever emerges will be based on "a change in the principle mechanisms of control from denial of access to cooperatively induced restraint." Second, "a cooperative security system involving extensive agreed-on constraints on military preparations would have to require all parties to accept a level of intrusive monitoring of their defense programs."⁴²

Enhancing Supply-side Controls to Stem Conventional Proliferation

There are four sets of supply-side measures that could be promoted to stem conventional proliferation.⁴³ The simplest and most straightforward would expand existing non-proliferation measures dealing with the delivery systems of weapons of mass destruction to include sophisticated conventional delivery systems, in particular advanced combat aircraft. This would not require the development of new norms of supplier restraint, since the desirability of controlling the proliferation of delivery systems for weapons of mass destruction has already been recognized in the MTCR. It would, however, not be able to strive for the "global zero" that characterized the MTCR (for specific categories of missiles), and hence would have to be targeted at particular states or groups of states. Between 40 and 50 states possess modern fighter/interceptor or strike aircraft, although only between 15 and 20 states in the developing world possess the most advanced models, such as the F-15, F-16, Su-24, MiG-29, or Tornado (including such states as India, Israel, Saudi Arabia, Cuba and North Korea). The number of producers of such aircraft is small - Britain, France, Germany, the United States and Russia - and the diffusion of the most advanced models is not so far advanced that control over future proliferation cannot be considered. Most importantly, these weapons may actually be more significant as potential delivery systems for weapons of mass destruction than the ballistic missile technologies controlled under the MTCR!⁴⁴

by the Canadian government over the past four years.

⁴¹ Carter, Perry and Steinbrunner, 6.

⁴² *Ibid.*, 36, 38-39.

⁴³ For a general overview of supply-side measures, see Jean-François Rioux, *Limiting the Proliferation of Weapons: The Role of Supply-Side Strategies* (Ottawa: Carleton University Press, 1992).

⁴⁴ For a provocative argument on the effectiveness of conventional weapons see John R. Harvey, "Regional Ballistic Missiles and Advanced Strike Aircraft: Comparing Military Effectiveness," *International Security*, 17:2 (Fall 1992), 41-83.

Related to this (but not confined to delivery systems for weapons of mass destruction) would be supply-side agreements not to introduce more advanced versions of existing weapons systems into regional conflicts. Such measures have already been attempted, both in President Carter's ill-fated Conventional Arms Transfer Talks (CATT) and in the 1991 guidelines of the P-5.⁴⁵ Possible systems that could be included in control discussions among major suppliers would be: advanced main battle tanks, enhanced explosive munitions, precision-guided battlefield weapons, short-range missile systems, cruise missiles, and advanced electronic warfare systems. Few of these systems have been widely diffused, yet all pose potential proliferation threats. Again, the thrust of such measures would be *preemptive* and forward-looking, and designed to limit the diffusion of weapons (and improvements to existing platforms) that emerge out of the military-technological revolution.

The second set of supply-side measures would concentrate on reinforcing systems to coordinate national export controls, focusing in particular on military-use technologies, such as those contained in CoCom's International Munitions List (IML). The rationale for technology export controls in the post-Cold War period has shifted from containment to non-proliferation, and this has had an important impact on existing technology control regimes.⁴⁶ The most dramatic change has been the demise of the CoCom (which formally ceased to exist on 31 March 1994), and its replacement by an as-yet vague organization with a wider membership and different mandate. In particular, attention has shifted to focus on a narrower list of technologies, and on a specific (if not public) list of proscribed countries who are threshold or opaque proliferators of particular weapons systems (states such as North Korea, Iraq, India, Pakistan and Iran are often mentioned). The membership criteria will include implementation of an effective export control system and adherence to the various control lists, and to relevant arms control treaties (such as the NPT or CWC).⁴⁷ The consultative mechanism will almost certainly be weaker than that of CoCom, and harmonization of the legal and

⁴⁵ The P-5 guidelines agreed not to "introduce destabilizing military capabilities in a region," which is not quite the same as an agreement to control new technologies. On President Carter's guidelines, see *Review of the President's Conventional Arms Transfer Policy*, Hearing before the Subcommittee on International Security and Scientific Affairs, Committee on International Relations, 95th Congress, 2nd session (Washington: Government Printing Office, 1978).

⁴⁶ Bertsch and Cupitt, 53-70; National Academy of Sciences, *Finding Common Ground: U.S. Export Controls in a Changed Global Environment* (Washington: National Academy Press, 1991); Kenneth Boutin, *Verifying Controls on Technology Proliferation*, Department of External Affairs and International Trade Canada (July 1992); Allen Chong, "Verification of End-Use Commitments: An Examination of US and Canadian Approaches," paper presented to the 11th annual conference of the Verification Research Unit, Department of Foreign Affairs and International Trade Canada, Montebello, 3-5 March 1994.

⁴⁷ For details see Thomas Jones, "Successor to CoCom: Issues, Opportunities and Challenges for Non-Proliferation Export Controls," paper presented to the Canadian counter-proliferation verification workshop, Ottawa, 25 November 1993.

actual national export control mechanisms of member states will be much more difficult to achieve, in particular among Eastern European member-states. The overall effectiveness of such a multilateral mechanism will hence be limited, and will almost certainly have to be supplemented by formal measures dealing with particular weapons systems of pressing proliferation concern.

The third, and related, set of supply-side measures applies to the problem of controlling the export and end-use of dual-use technologies. These cannot be restricted in the same way as purely military goods, primarily because of their importance for the civilian economy and economic development, and secondarily because of the political difficulties involved. Hence, any successor to CoCom will likely cover only a much narrow "super-core" list of dual-use technologies. The shift from military-led to civilian-led technological innovation (discussed above) also creates enormous problems for end-user certification, since the exact same instrument can be used for both purposes. One example of this would be American attempts to monitor the end-use of a Cray supercomputer exported to India: the official purpose of the computer was for national meteorological modelling and weather forecasting, and an American embassy official was charged with checking on this. It does not take a sophisticated knowledge of computing processes to realize, however, that it is virtually impossible to verify the "end-use" of supercomputing power without actually operating the computer and controlling all access to it. Another example is the alleged similarity between the Indian space launch and military missile programs, which suggest that technologies have been "leaking" from one realm to the other.⁴⁸

The implications of this for controlling conventional proliferation are four-fold. First, as civilian technologies (in communications, computing, electronics) become the leading-edge of innovation, the costs involved in effective verification of their end-use rapidly become prohibitive. The problems in simply tracking and measuring the trade in these technologies are enormous, given their component nature (ie: software, materials), and the expansion of "closed container" trade between ports.⁴⁹ Second, since the possible applications of these technologies are vast, the line between civilian and military uses increasingly blurry, and the number of potential suppliers large, national or multilateral control and verification mechanisms will almost topple of their own weight. How, for example, could one control the military uses of a possible global commercial mobile communications system (such as Motorola's *Iridium*), the global positioning system, or the high resolution satellite imagery available from commercial sources (from France and Russia in particular)? Third, there is no strong political constituency pushing for transparency, let alone control, in the transfers of these technologies, and

⁴⁸ I am indebted to Brad Roberts for the supercomputer example. On India's missiles program see Gary Milhollin, "India's Missiles - With a Little Help from our Friends," *Bulletin of the Atomic Scientists*, 45:9 (November 1989), 31-35.

⁴⁹ On some of the issues raised in this paragraph see Ian Anthony, "Current Trends and Developments in the Arms Trade."

in fact there are strong military and commercial arguments against transparency and control. Finally (and on a somewhat positive note), these considerations almost dictate that supply-side controls in this realm will be developed in conjunction with recipient states, thus moving this category of controls into the "mixed" model.

The final set of supply-side measures concern the development of new norms or principles to govern the transfer of arms and military technologies. As noted above, the two previous efforts in this direction were unsuccessful (the CATT and the 1991 P-5 Initiative), but the end of the Cold War has spurred further efforts in this direction, from both governmental and non-governmental sources. On the governmental side, the United States has proposed (in the Conference on Disarmament in Geneva) a "Code of Conduct for Conventional Arms Transfers," modelled after the CSCE principles governing conventional arms transfers.⁵⁰ A similar proposal had been advanced by the Irish government in the UN General Assembly First Committee.⁵¹ The Disarmament Commission in New York is also working on a set of draft guidelines concerning "the role of science and technology in the context of international security, disarmament and other related fields," elements of which concern directly the principles that should govern trade in dual-use technologies (this will be discussed in more detail below). The most comprehensive non-governmental proposal has been advanced by the International Association of Lawyers Against Nuclear Arms (IALANA), for a convention on arms stockpiling, production and transfers.⁵² Although the various proposals differ widely in their intent and wording, they are subject to the same general observations.

The American CD proposal establishes two sets of criteria to govern transfers: those concerning the political situation in the recipient state and region (ie: respect for human rights, regional conflicts, compliance with non-proliferation measures and the economic burden posed by armaments); and those concerning the impact of the weapons on the recipient state and region (ie: will the arms be used to suppress human rights, threaten other states, exacerbate conflicts, or support terrorism). While laudable, such criteria can only serve a declaratory function, for virtually every principle or paragraph in the document is open to widely diverging interpretations that can (and will) be bent to politically expedient ends.

⁵⁰ The United States proposal was transmitted to the CD on 31 March 1994.

⁵¹ The Irish "non-paper" was transmitted to the First Committee of the General Assembly on 2 November 1993.

⁵² See the *Draft Convention on the Monitoring and Reduction of Arms Stockpiling, Production and Transfers: A Regime for Comprehensive Arms Restraint* drawn up at a workshop of scholars, experts and lawyers in New York, 22-23 May 1993.

As a confidence-building measure, however, such proposals have merit, but *only* if over time the states that accepted such a code:

- made public the rationale behind their transfers;
- behaved (reasonably) consistently over time;
- consulted with other participants prior to transfers;
- actually foreswore certain transfers as a consequence of adhering to the code of conduct;
- developed converging expectations that permitted them to harmonize their policies without recourse to formal treaties or definitional exercises.⁵³

What is particularly important to note is that "codes of conduct" are long-term measures that facilitate harmonization and reduce ambiguity, but that they are a poor substitute or foundation for more immediate formal or negotiated agreements and understandings that could involve verification or compliance monitoring. The definitional struggles that ensue over such concepts as "excessive and destabilizing accumulations of arms" are detrimental to formal arms control negotiations, but they do form an essential part of regime building, and perhaps can lay the foundation for concrete initiatives in the longer-term, once a consensus on, for example, the meaning of "excessive and destabilizing" in a particular context has been reached. Thus as long as the long- and short-term goals are complementary, or not confused, the promotion of norms or principles concerning the proliferation of conventional arms can contribute positively to advancing the non-proliferation agenda.

Although this overview suggests that there are several measures that could be pursued to enhance the existing web of supply-side controls, it is unlikely that any of these measures by themselves would be sufficient to stem the proliferation of advanced conventional weapons. There are many reasons for this, but the most important would be that arms transfers are not simply "supply-push": the demand side of the equation is equally (if not more) important in determining the flow of weapons and military technologies. This strongly suggests that supply-side measures must be pursued in conjunction with some of the "mixed" measures discussed below, many of which represent a major departure from existing non-proliferation measures.

⁵³ This list of criteria is modelled on the classic requirements for constructing what International Relations scholars call a "regime," defined as "sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations." Stephen Krasner, ed., *International Regimes* (Cornell: Cornell University Press, 1983), 2.

Enhancing "Mixed" Supply- and Demand-side Controls to Stem Conventional Proliferation

The goal of "mixed" measures to constrain conventional proliferation is to bridge the gap between supply-side and demand-side measures in order to overcome the inevitable resistance to exclusively supply-side measures that recipient states have argued are discriminatory and unfair. In a purely monopolistic or oligopolistic system, such objections would be moot, as the powerful suppliers could merely assert control and effectively restrict the flow of weapons and technology (at least in principle). In the global arms transfer and production system of today and the near future, however, such purely supply-side controls are impossible to exercise, because suppliers face economic imperatives to export arms, because there are always several channels of supply, and because the relative balance of power between suppliers and recipients has shifted in favour of the latter. All of these factors suggest that the correct approach to constraining proliferation is to design measures that rest on one of two kinds of "linkages":

- they involve some form of cooperative "bargain" between suppliers and recipients;
- they are linked to some form of coercive pressure or influence that supplier states can exercise based on their possession of a scarce or desirable resource.

As the possibilities discussed below illustrate, there are no easy ways to overcome the tension between discriminatory supplier-based measures and non-discriminatory supplier-recipient arrangements. One can discern, however, five possible areas of attention that could form the basis for constraining conventional proliferation, some of which are currently being explored by various states and multilateral institutions.

The first, the development of *conditional technology access* regimes, would constrain proliferation by encouraging potential suppliers of military technology to participate in "robust" export control systems and information sharing mechanisms (analogous to the Australia group or MTCR). Such regimes would require strong national verification and compliance monitoring mechanisms, and the ability of other member-states to query these policies or particular applications of them. Most of the possible areas for control of these technologies have been mentioned above, and they focus on advanced technologies in the computing, electronics, communication, aerospace, precision-machining and materials sectors. A *conditional technology access* regime would be analogous to a "members' club" with three simple rules: specified high-technology goods will be traded freely among the members of the club; these goods will not be used militarily against other members of the club; and these goods will not be traded outside of the club. The second of these rules suggests that such a regime would have to be embedded within broader cooperative security arrangements.

The economic and industrial benefits gained from access to high-tech goods, whether these are used to foster civilian aerospace, communications, or precision-machine industries, will almost always outweigh the potential short-term benefits to be gained from their export, and hence the creation of conditional technology access regimes is likely to be limited primarily by the ability of states to create adequate national export control systems, by the number of participants (which increases the complexity), by the nature of the technologies in question (with such things as software being virtually impossible to control, while items such as precision machine tools being relatively easier to control), and by overall patterns of security cooperation.

It is important to note, however, that conditional technology access regimes are much better suited to controlling dual-use technologies and components than actual weapons systems, which can probably only be addressed in exclusively supply-side controls (as outlined above). This stems from the fact that it is politically problematic to link the trade in weapons systems, which are implicated in national security rhetoric and politically-sensitive patron-client or alliance relationships, to the economic benefits that flow from access to critical technologies. Some of the acrimony in the Chinese-American relationship, for example, stems from the implicit and explicit linkage of Chinese arms export policy with the extension of most-favoured nation (MFN) status for international trade.⁵⁴ It is far easier, on the other hand, to participate in a restraint regime if it concerns dual-use technologies and components, is less politically visible, and is part of an ongoing multilateral process of consultation.

The second type of measure, *conditional technology assistance* relationships, would focus attention not on suppliers of weapons and technology, but on potential recipient/producers or proliferators in the third tier. For the industrialized first and second-tier states which are potential proliferators of advanced conventional military technologies, enhanced *access* to high-technology goods may be sufficient to encourage restraint in military technology transfers, because the public or private sector (nascent or robust) will be able to make use of this access to facilitate investment and economic growth. The levels of economic and industrial development among states within the group of potential suppliers is sufficiently similar that the benefits of access to technology will be tangible and immediate (as are the costs of curtailed access), in the competitiveness of high-tech industrial sectors and the development of national infrastructures (telecommunications, high speed data analysis and transmission, supercomputer applications). But for states in the less-industrialized world, simple *access* will not be a sufficiently powerful inducement to guarantee their participation in technology control regimes. In fact, these states may gain nothing from increased access, unless they have some

⁵⁴ For a good overview see R. Bates Gill, *The Challenge of Chinese Arms Proliferation: U.S. Policy for the 1990s*, report of the Strategic Studies Institute, U.S. Army War College, 31 August 1993.

assurance that they will receive assistance to use and profit from the technologies that are made available.

There is an important political or perceptual "gap" here between the North and the South, which promises to complicate enormously the task of designing effective conventional non-proliferation measures.⁵⁵ From the Southern perspective three issues are important: national security concerns and the right of self-defence, the perceived "right of access" to high-technology as part of economic development assistance, and the transparency of restraint regimes. Most of these concerns can be addressed, but they require a different (and more complex) sort of bargain than that which informs conditional technology *access* measures, where participating states can be assumed to share certain common goals and perceptions, and where the linkages that make the regime work do not extend beyond to other issues areas (such as development assistance). As a result, conditional technology assistance relationships will most likely be bilateral, and will have to link technological development assistance to certain sectors (precision machines, or information technologies) to strong end-use guarantees, to participation in universal non-proliferation measures (the UN register, the CWC), or to regional confidence and security-building processes.

The third type of mixed measure would link restraint on both the demand and the supply side of conventional armaments to the *development of security guarantees* in regions such as the Middle East, Northeast Asia, Southeast Asia or Latin America. This would treat the development of controls on conventional proliferation as an integral part of regional confidence and security-building (or arms control) processes, such as in the ongoing Middle East multilateral discussions on regional security. Since measures to constrain proliferation in this category would follow from broader peace and security-building processes, they will not be discussed further here.

The fourth mixed measure would link proposals to control conventional proliferation to *other non-proliferation measures*, in particular to those that impose costs and burdens on supplier and producer states as a *quid pro quo* for restraint among potential recipients. One example of such a linkage (which does not concern conventional weapons) is the connection that has been drawn between the achievement of a Comprehensive Test Ban Treaty among nuclear powers and the extension or renewal of the Non-Proliferation Treaty. Analogous measures in the conventional realm could involve the forswearing of ballistic missile defence programs as a concomitant to an expanded MTCR, or the expansion of the UN Register of Conventional Arms to include not just weapons

⁵⁵ Evidence of this has emerged from the 1993-94 discussions in the Disarmament Commission on draft guidelines on "the role of science and technology in the context of international security, disarmament and other related fields."

transferred between states, but also national holdings and procurement (discussed in the companion report to this report).

The final mixed measure, *linkage to economic development*, would connect restraint in conventional arms acquisitions to access to the international financial system, by tying restraint on the part of Southern states to development assistance, World Bank lending, credits from the International Monetary Fund, or other multilateral financial instruments for development. This general idea has received great attention since 1989, when the managing director of the IMF and the president of the World Bank began speaking out on the seemingly excessive resources devoted to spending on the military and security in many parts of the developing world.⁵⁶ Individual donor and lender states (in particular Japan, Germany, the Nordic countries and Canada) have also stated that their overseas development assistance programs will consider military spending and security policies in their decisions.

The relationship between such measures and constraining conventional proliferation can only be indirect, since there is no easy mechanism for assessing comparatively the impact of armaments spending on economic development and security. The indirect linkage between development assistance and armaments acquisitions is strong, however. Overall global levels of arms imports track very closely the pattern of global military spending, suggesting (not surprisingly) that arms acquisitions and imports are determined within overall policies concerning defence spending. In so far as military spending can be reduced through such pressures, arms acquisitions will likely decline.

Measures to link economic development programs to reductions in military spending must be approached with caution, since the separation of security and development issues has hitherto been sacrosanct for good reasons. In particular, it is still the case that the most important influence on military spending levels in one state is the level of military spending in neighbouring countries, suggesting that the classic "security dilemma" is still the major motivation behind excessive weapons build-ups. Hence initiatives that target individual states could exacerbate rather than ameliorate conflicts, and could certainly tread on the sovereign prerogatives of states. Likewise, such measures are discriminatory if they exclude states that do not suffer financial constraints that require them to turn to the international community (ie: resource-rich states), if they affect only those states that cannot produce their own weapons (allowing producers to arm themselves with impunity), or if they

⁵⁶ See Nicole Ball, "Development Assistance and Military Reform," *International Security Digest*, 1:2 (1993), 3; Nicole Ball, *Pressing for Peace: Can Aid Induce Reform?*, policy essay no. 6 (Washington: Overseas Development Council, 1992); Robert Miller, ed., *Aid as Peacemaker: Canadian Development Assistance and Third World Conflict* (Ottawa: Carleton University Press, 1992).

affect only those states that borrow from multilateral financial institutions, rather than those which obtain credit in the private market (this is increasingly the case in, for example, East Asia).

The most straightforward initiatives concentrate on the "stick" of threatening to reduce bilateral or multilateral development assistance or credits in order to reduce military expenditures. The comparative indicators that have been used include: the percentage of GNP devoted to the armed forces, the percentage of government expenditures devoted to the armed forces, the relationship between military spending and fiscal deficits, and the level of personnel in the armed forces (soldiers/thousand population). These indicators vary widely from region to region, and offer no easy bench marks, but within particular regional contexts there are always one or several "outlier" states that appear to devote disproportionate resources to the military. These are not always, however, the states most susceptible to multilateral pressure.

Perhaps the most important initiatives concentrate instead on the "carrot" of offering inducements and assistance to those states that participate in cooperative security-building processes, multilateral non-proliferation regimes, and domestic demilitarization programs. Attention in three specific areas has been highlighted by research in this area: the demobilization and reintegration of military personnel in the aftermath of conflicts or a transition to democratic rule (eg: Argentina, Uganda, Central America, Russia); the conversion of defence industries (eg: Slovakia, Poland and the former Soviet Union), and in the overall rebalancing of military expenditure with other government spending (eg: much of Sub-Saharan Africa, India). Each of these issues goes beyond simple declaratory policy linkages, and requires concerted assistance from the international community in such matters as civil military relations, military personnel retraining schemes, investment and export assistance, and the encouragement of "good governance."⁵⁷ All also hold greater promise if linked to some of the exclusively supply-side strategies discussed above, or if part of a more comprehensive package of specific efforts to stem the proliferation of conventional weapons. In particular, such positive measures could, if linked to measures for conditional technology access and supplier restraint, help catalyze conventional non-proliferation efforts.

⁵⁷ "Good governance" is a catch-phrase popularized by the World Bank to describe "the manner in which power is exercised in the management of a country's economic and social resources for development." See World Bank, *Governance and Development* (Washington, D.C.: IBRD, 1992), 58. The OECD Development Assistance Committee uses the term to cover a range of issues associated with participatory development, respect for human rights, transparency in decision-making and democratization.

Conclusion: A Role for Canada?

Canada plays a relatively minor role in the global arms transfer and production system: we are at the bottom of the top ten arms producers, three-quarters of our production is exported to one customer (the United States), and we export few completed major weapons systems. Given this, Canada's options for playing a leadership or catalyzing role in multilateral initiatives to control conventional proliferation are limited. As a relatively small player, Canada also has few unique or specialized resources to bring to bear on these issues, and there is always the possibility that Canadian proposals will be viewed as self-interested, if they propose measures that impose few if any direct costs or consequences on Canada (in restricting exports, for example), while other states bear the burden of constraining conventional proliferation.⁵⁸

There are, however, at least three strengths or issue areas that arise from our domestic experience and expertise that could be built upon.⁵⁹ The first is Canada's participation in a wide range of multilateral institutions that involve most of the industrialized world (OECD, NATO, CSCE), or that bridge the gap between North and South (UN, OAS, Commonwealth, la Francophonie). This would facilitate the creation of linkages between the different measures outlined above, many of which can be enhanced if made to work together. The second strength is Canada's role as a major contributor of overseas development assistance, which opens the way to creative efforts (if carefully targeted) to meet some of the non-proliferation goals outlined above, especially in exploring the role of positive inducements in catalyzing restraint. The third is the general thrust of Canadian foreign policy, with its emphasis on building international peace and security through cooperative measures. The need to bridge the gap between suppliers and recipients in the North and South, and the almost inevitably multilateral nature of future non-proliferation efforts, is perfectly suited to Canada's commitment to active multilateralism.

The case for acting in concert to constrain conventional proliferation has received renewed energy since the end of the Cold War, and the fiscal crises faced by Northern and Southern states alike has provided renewed urgency to the quest to reduce expenditures on armaments and the military. The possibilities for the development of ever-more destructive conventional weapons in the near future

⁵⁸ There is some evidence that these factors played a role in the lukewarm reception that Canada's major post-Gulf War proliferation control initiative received. For a discussion of the fate of this initiative, see Keith Krause, "Arms Transfers and International Security: The Evolution of Canadian Policy," in Fen Hampson and Christopher Maule, editors, *Canada among Nations 1992-93: A New World Order?* (Ottawa: Carleton University Press, 1992), 283-301.

⁵⁹ See, for an overview of this issue, Shannon Selin, "Applying Canadian Strengths to Non-Proliferation," paper prepared for a Non-Proliferation Verification workshop sponsored by the Verification Research Unit, Department of External Affairs and International Trade Canada, 28 November 1993.

also compel policy-makers to focus attention beyond the narrow "classical" agenda of weapons of mass destruction. Such efforts will be bounded, however, by structural considerations stemming from the nature of the global arms transfer and production system, the economic and political imperatives facing its different groups of participants, and from the trajectory of recent change in the system itself. Successful efforts to constrain conventional proliferation will have to take into account these conditions. Addressing these issues will also require broadening the ambit of arms control, non-proliferation and verification policies to include issues concerned with technology and technology transfers, national export control policies, and development assistance. The precise levers that could be used to link these issues to the problem of stemming the proliferation of conventional weapons is not clear, however, and several avenues of further research need to be explored.

Appendix I

Notes to Table I

Figures for columns one and two are from the U.S. Arms Control and Disarmament Agency, *World Military Expenditure and Arms Transfers 1991-1992* (Washington, D.C.: ACDA, 1994). Figures for columns three and five are derived by country, with sources listed below. Figures for column four are derived from those in column two and three.

United States: Production figures for 1991 are derived from domestic procurement authorizations (\$60.5 billion), in SIPRI, *1993 Yearbook*, 346, plus ACDA figures for exports, minus imports. This figure is slightly misleading, because budget authorization does not equal actual year spending, but it is close. R&D figure for 1992 is from SIPRI, *1993 Yearbook*, 308.

USSR/Russia: Production figures for 1991 are from Julian Cooper, in Herbert Wulf, ed., *Arms Industry Limited* (Oxford: Oxford University Press, 1993), 88, and are converted from roubles by correlating his figures for military expenditure (96.6 billion roubles) with the ACDA figures given in the table. R&D figures (10.4 billion roubles) have been converted in the same fashion.

China: Procurement has been estimated at 10 percent of the budget at the beginning of the 1990s, with R&D estimated at 12 percent, in Wulf, 310-311. The production figure has been derived from this estimate and the ACDA military expenditure figure, and by adding to this the ACDA export total. This figure accords well with that presented in other sources. The R&D figure has also been derived in this way.

Britain: Production figure is derived from the 1991 figure for procurement (97.5 billion francs) given in SIPRI, *1993 Yearbook*, 373, plus the ACDA figure for arms exports, minus arms imports. R&D figure is for 1988, and is derived from P. Patel and K. Pavitt, "Europe's Technological Performance," in Christopher Freeman, Margaret Sharp and William Walker, eds. *Technology and the Future of Europe: Global Competition and the Environment in the 1990s* (London: Pinter Publishers, 1991), 41. R&D spending has not declined significantly since then.

France: Production figure is derived from the 1991 figure for procurement given in SIPRI, *1993 Yearbook*, 373, plus the ACDA figure for arms exports, minus arms imports. R&D figure for 1990 is from SIPRI, *1993 Yearbook*, 308.

Germany: Production figure is derived from the 1991 figure for procurement given in SIPRI, *1993 Yearbook*, 373, plus the ACDA figure for arms exports, minus arms imports. R&D figure for 1990 is from SIPRI, *1993 Yearbook*, 308.

Czechoslovakia: Production for 1991 was estimated at 11,070 billion CS (or \$379 million) in SIPRI, *1993 Yearbook*, 402. The official estimate of the share of exports in total production is 67 percent, given in Wulf, 240. Military R&D in Czechoslovakia (and now the Czech and Slovak Republics) had dropped to virtually zero by 1992. Wulf, 243.

Poland: Production figure for 1992 (4.13 billion zlotys) is from Wulf, 226, and was converted using the exchange rate of .0671 zlotys/\$1). This accords well with the figure obtained by adding the ACDA export figure to the domestic procurement figure for 1992 (2.926 billion zlotys, or \$197 million) given in SIPRI, *1993 Yearbook*, 409. R&D figure for 1992 is from SIPRI, *1993 Yearbook*, 409.

Sweden: Production figure based on Björn Hagelin, *Neutrality and Foreign Military Sales* (Boulder: Westview Press, 1990), which estimates military production at about 1.1 percent of GNP. This gives a figure for the late 1980s of around \$2 billion, which I have reduced by five percent/year for four years, taking into account the restructuring of the Swedish arms industry. R&D figure is for 1988, and is derived from Patel and Pavitt, 41.

Italy: Production figure is derived from the 1991 figure for procurement given in SIPRI, *1993 Yearbook*, 373, plus the ACDA figure for arms exports, minus arms imports. R&D figure for 1990 is from SIPRI, *1993 Yearbook*, 308.

Israel: Production figure for 1990 from Wulf, 371.

India: Production figure for 1990 from Wulf, 371. R&D figure derived from SIPRI, *1987 Yearbook*, 154-156.

South Korea: Production figure for 1990 from Wulf, 373. R&D figure is from United States, Office of Technology Assessment, *Arming our Allies: Cooperation and Competition in Defence Technology* (Washington: Office of Technology Assessment, 1990), 18.

**The United Nations Register of Conventional Arms:
Options and Proposals for Enhancement and Further Development**

Edward J. Laurance
Associate Director
Program for Nonproliferation Studies
Monterey Institute of International Studies

Introduction

In December 1991 the United Nations General Assembly passed by a vote of 150-0 a resolution entitled Transparency in Armaments, establishing for the first time in history a Register of Conventional Arms. The first reports were due on 30 April 1993 and by September 1993 eighty-two countries had submitted reports. Seen by some as just another UN exercise, the first year's data surprised many by making transparent through voluntarily submitted data more than 90% of the major conventional arms exported and imported in the world in 1992.

The Transparency in Armaments resolution also established a review process, featuring a group of experts to be formed in 1994 to evaluate the first two years of operation of the Register and consider its further development. That Group, consisting of experts from 23 countries, has held its first session and developed a draft outline for its report, which is due to the UN Secretary General by August 1994. This research report is designed to assist those charged with evaluating the first years of operation and further developing the Register into an instrument which can effectively promote international peace and security.

The report begins with a brief history of the Register, establishing its role in the larger context of the family of efforts designed to stem proliferation of weapons, enhance conflict prevention and resolution, and promote conversion from a military to a civilian economy. This is followed by a review of the first year of operation of the Register and its current status. The Register is then evaluated in terms of how well it addresses the trends in the international arms trade which have emerged in the post-Cold War and post-Gulf War international system. The report then systematically evaluates the various concepts which could enhance the Register and transform it into a useful instrument of cooperative security. The report concludes with some concrete proposals and an outline of future research.

The New International Environment: Non-Proliferation and Transparency

The establishment of the UN Register of Conventional Arms took place in a context shaped by two seminal events, the end of the Cold War and a Gulf War which saw an Iraq armed with imported advanced weapons overrun its neighbour Kuwait, threaten the oil fields of the Gulf, and hold off an international coalition of the major military powers for almost six months. The end of the Cold War saw the disintegration of the Soviet Union and the emergence of a Russia that was working in tandem with the other major powers, in the UN Security Council and elsewhere. The immediate effect was increased attention paid to non-proliferation of weapons systems and transparency.

Non-Proliferation of Weapons of Mass Destruction

During the Cold War, the non-proliferation of nuclear weapons was one of the few security goals shared by the United States and the USSR. It was not surprising, therefore, that in the post-Cold War era this cooperation would continue and accelerate. The Gulf War provided a major impetus to such cooperation. The Iraqi invasion of Kuwait and the allied response created an unprecedented international consensus that the accumulation of advanced weapons systems can be a major factor in the outbreak, conduct and termination of armed conflict. It was a clear case of such accumulations being destabilizing in themselves and leading to negative consequences even for the major powers. Combined with the end of the Cold War and the decline of the military threat from the Soviet Union, the result was an increase in the attention that the world paid to the proliferation of destabilizing and dangerous accumulations of weapons systems as a major threat to international stability.

The response to this new threat of proliferation by the international community has varied according to the nature of the weapons systems. In the case of weapons of mass destruction, the response has been a legalistic one based on a series of United Nations resolutions which created a UN Special Commission on Iraq (UNSCOM) that continues to search for and destroy nuclear and chemical weapons, their missile delivery systems, and the capability that Iraq had assembled for indigenous manufacture of such systems. The International Atomic Energy Agency, unable to detect an ongoing Iraqi effort to build a nuclear weapon during the 1980s, has been steadily revamping its procedures and adapting itself to this new world where would-be proliferators are getting much more attention from the international community.

This increased concern for proliferation also gave a huge boost to the stalled Chemical Weapons Convention which was completed in 1993. Dormant supplier-based groups also became caught up in this transformation. The Missile Technology Control Regime (MTCR) began to add new members and key non-members such as China and Russia pledged to at least behave according to the norms

established by the founding members in 1987. The Nuclear Suppliers Group (NSG) also responded to the reality uncovered by the Gulf war to add additional dual-use items to the list of targeted commodities which form the core focus of their efforts to stem proliferation via trade restrictions.¹ And finally, having successfully completed the Chemical Weapons Convention, the Geneva-based Conference on Disarmament has turned its attention to negotiating a Comprehensive Test Ban Treaty. If such a treaty results in the end to nuclear testing, the prospects for an indefinite extension in 1995 of the Nuclear Non-Proliferation Treaty increase significantly. In sum, at the moment it appears that these two seminal events have made possible significant progress toward stemming the proliferation of weapons of mass destruction and their means of delivery.

Transparency

As with non-proliferation, the international community has also begun to emphasize transparency as a new approach and basic building block to cooperative security. This is most readily seen in the Conference on Security and Cooperation in Europe (CSCE) where a host of transparency measures were put into effect and further developed as the Cold War ended, to include exchanges of information under the CFE and Open Skies Treaties and the more regularized exchange of databases on order of battle and inventories of member states. In the United Nations, the UN Disarmament Commission (UNDC) has taken up the question of objective information on military matters. Several regional organizations have begun to take steps to make military information more open.² There is even an effort by the international financial organizations to tackle a subject long a taboo, making trade statistics on military trade more transparent.³

Post-Cold War International Arms Trade Control

What was the impact of these two events on the proliferation of conventional weapons? Throughout the Cold War the trade in conventional weapons was never a part of the larger non-proliferation agenda, at least at the international and multilateral level. But the end of the Cold War brought about major systemic changes in the arms trade which were relevant to the emergence of the UN Register. One of the major suppliers of the Cold War era, the Soviet Union, disappeared as a major

¹ For a recent assessment of the response of the NSG to the end of the Cold War and the Gulf War, see Tadeus Strulak, 'The Nuclear Suppliers Group,' *The Nonproliferation Review* I, 1 (Fall 1993), 2-11.

² For a summary of these transparency efforts, see Hendrik Wagenmakers, 'The UN Register of Conventional Arms: A New Instrument for Cooperative Security,' *Arms Control Today* (April 1993), 17-19.

³ As part of this effort, the General Agreement of Tariffs and Trade (GATT) is convening a meeting of experts in May 1994 to address the issue.

supplier of arms, leaving the United States as the largest supplier until at least the year 2000. With the end of the Cold War and its systemic arms race, the demand for advanced high technology weaponry declined significantly, with defence budgets in major military industrial nations declining as a result. Also, the concept of exporting arms for political influence began to be replaced by economics (especially jobs) as the primary motive of supplier states. This has led to significant amounts of surplus equipment becoming available at low prices. Major arms producing nations, therefore, have not been able to keep national production up through exports. These above realities resulted in a downward trend in the trade in major conventional weapons that was well underway by August 1990 when Iraq invaded Kuwait with a vast arsenal of imported weapons.

To highlight the importance of the development of the Register in 1992 one needs to briefly review the state of international arms trade control prior to the end of the Cold War, starting with the interwar years when the negative effects of the arms trade received a great deal of attention. The issue of controlling the export of conventional arms first surfaced in the wake of World War I, when 'Merchants of Death' were accused of starting and fuelling a host of armed conflicts. The Covenant of the League of Nations, adopted in April 1919, included an article on arms transfers:

...the Members of the League [...] will entrust the League with the general supervision of the trade in arms and ammunition with the countries in which the control of this traffic is necessary in the common interest. (Article 23, para. d)

The Members never could agree on how to control this traffic but did attempt to agree on a common set of data with which to evaluate the effects of arms traffic and its contribution to conflict. In 1925 the first *Statistical Yearbook of the League of Nations* was published, showing the values of arms imports and exports based on official national statistics.

Although the statistics were improved during the 15-year period, the figures were approximate, incomplete and generally not comparable, due to the national differences in trade classification systems, the valuation of arms transfers and different practices regarding the disclosures of countries of origin or destination. Moreover, some important categories of arms, such as heavy artillery, tanks, warships and military aircraft, were practically excluded, reflecting the structure of the foreign trade statistics on which the *Statistical Yearbook* was based.⁴

The publication of these arms trade data continued through 1938, the final volume covering 60 countries and 64 colonies, protectorates and mandated territories.⁵ With the onset of World War II, this register ceased to operate.

⁴ Report of the Secretary General, *Study on ways and means of promoting transparency in international transfers of conventional arms*, UN General Assembly Document A/46/301, 9 September 1991, para. 25.

⁵ *Ibid.*

During the Cold War, there were periodic unsuccessful attempts at controlling the arms trade. In the early 1950s the U.S., France and the United Kingdom signed an agreement to control exports to the Middle East, an agreement which became moot when the USSR began exporting into that area. In the late 1970s in the United States, the Carter administration embarked on a series of policy initiatives designed to stem the flow of arms, all of which came to naught in the face of the realities of international politics. Attempts within the United Nations to deal with the international arms trade, and in particular to establish an arms register, met up with the similar realities.⁶ In 1968 the Stockholm International Peace Research Institute (SIPRI) decided to return to the effort at making arms trade data transparent in the form of a register, but only with information from non-governmental sources. To sum up, when the Gulf War created an international consensus that the arms trade can lead to negative consequences and something should be done to reduce such negative consequences, nothing resembling a multilateral regime existed to deal with the problem.

It is therefore not surprising that in the wake of the Persian Gulf War there was an unprecedented outpouring of more traditional arms trade control proposals from defence trade publications,⁷ the CEO of Daimler-Benz,⁸ supplier governments,⁹ recipient governments¹⁰ and European organizations.¹¹ Contained in these proposals were policies to tighten up export procedures and begin to develop more international controls. On 29 May 1991, President Bush announced the 'Middle East Arms Control Initiative,' calling for the five largest arms supplier nations (the U.S., USSR, France, the U.K. and China) to meet in Paris to 'establish guidelines for restraints on destabilizing transfers of conventional arms, as well as weapons of mass destruction and associated technology.' The proposal also called for expanding the talks to other suppliers and permitting states in the region to 'acquire the conventional capabilities they legitimately need to deter and defend against military aggression.' To implement the regime suppliers would commit to 'observe a general code of responsible arms transfers, avoid destabilizing transfers, and establish effective domestic export controls on the end-use of arms or other items to be transferred.' The proposal also called for a consultative mechanism. Further, it was recommended that a freeze be put on surface-to-

⁶ For a brief but complete summary of these actions see Herbert Wulf, 'The United Nations Register of Conventional Arms,' in *SIPRI Yearbook 1993: World Armaments and Disarmament* (Oxford: Oxford University Press, 1993), 533-44.

⁷ 'Unify Arms Control,' *Defense News*, 22 April 1991.

⁸ 'EC Ponders Single Policy to Regulate Arms Sales,' *Defense News*, 1 April 1991.

⁹ 'European Governments Take Steps to Tighten Military Export Controls,' *Defense News*, 1 April 1991; 'Italians Seek Global Forum on Arms Sales,' *Defense News*, 11 March 1991; 'France to Urge Export Policy Coordination,' *Defense News*, 8 April 1991; 'Canada Prods United States on Arms Sales,' *Arms Control Today*, June 1991.

¹⁰ 'Egypt Proposes Regional Arms Control Plan,' *The New York Times*, 5 July 1991.

¹¹ 'EC Ponders Single Policy to Regulate Arms Sales,' *Defense News*, 1 April 1991; 'EC Export Control Scheme Planned,' *Jane's Defence Weekly*, 8 June 1991.

surface missiles in the region, with a goal of their eventual elimination.¹² Complementing and sometimes challenging the President's effort were a series of proposals from the U.S. Congress. They ranged from an outright ban on all arms sales to the Middle East to support for the arms register concept.¹³

In the aggregate, the above developments formed the basis for an emerging international norm, that the accumulation of excessive and destabilizing amounts of conventional weaponry by a state is unacceptable.¹⁴ As a result there were policy proposals from many quarters to develop multilateral and international control mechanisms designed to prevent a re-run of the Iraqi situation. The five permanent members of the UN Security Council began meeting in July 1991 to develop some multilateral restraints on destabilizing arms transfers. But these traditional arms trade control approaches soon fell victim to the realities that have always existed and the so-called P-5 talks are dead in the water. Rarely can states agree prior to a transfer that it will indeed be destabilizing, a reality that still exists in the post-Cold War era. A critical part of such an approach, the existence of agreed-upon government data on arms inventories, has never existed. Furthermore, with the end of the Cold War producing rapidly declining orders for domestic defence production, the pressure from the defence industries was clearly against any movement toward national or international arms export controls, let alone restraint.

The UN Register: Fall Back Position or Step Forward?

It was in this context that the United Nations began to seriously consider the idea of transparency as an alternative approach, the opening up of information on the arms trade so as to allow the effected states to dampen and eliminate the negative military and strategic consequences which ensue. In effect the norm of transparency was added to that of preventing excessive and destabilizing arms build-ups. Much of the impetus for the idea came from the degree of transparency, albeit unintended, surrounding the Iraqi case, such as the unwanted publicity that Germany received as a result of transfers to Libya and Iraq. 'Lists' of firms and the items exported which had led to undesirable military capability in these two states provided the most thorough evidence made public as to how a developing state can acquire the ability to produce ballistic missiles with warheads of mass

¹² *Middle East Arms Control Initiative*, The White House, Office of the Press Secretary, 29 May 1991.

¹³ For a complete list, see 'Congress's Actions on Arms Transfers: From Limits to Loans,' *Arms Control Today*, June 1991.

¹⁴ A full discussion of norms associated with the Register can be found later in this chapter.

destruction.¹⁵ Transparency also began to surface as a purposeful effort. In the spring of 1989 the United Nations sponsored a conference on the subject in Italy and published the papers in 1990.¹⁶ In the spring of 1991, in the aftermath of the Gulf War, country after country began to publish details of its arms exports, and put forth proposals for transparency and the idea of an international arms trade register. The French, Germans, Bulgarians, Czechs and the Soviets all published heretofore unreleasable data on arms exports.¹⁷ As the July 1991 G-7 summit meeting approached, the leaders of Japan and the United Kingdom put forth formal proposals for an international arms trade register, an idea which was ratified at the actual summit.¹⁸

Within the UN support was gradually building for an alternative to actual arms control, more gradual approach. In its resolution 43/75 I of 7 December 1988, the UN General Assembly requested the Secretary General to undertake, with the assistance of a panel of governmental experts, a 'study on ways and means of promoting transparency in international transfers of conventional arms on a universal and non-discriminatory basis.'¹⁹ Though the study was requested prior to the end of the Cold War, it was carried out and concluded within a far different environment. The group of experts met on four occasions between January 1990 and July 1991, with the spectre of the Gulf War looming as a prime example of the negative effects of excessive and destabilizing accumulations of arms. Besides reviewing past proposals for the regulation of arms transfers and outlining the international arms trade environment, the group forwarded several recommendations concerning the role of transparency in promoting restraint in arms transfers, not the least of which being the creation of a universal and non-discriminatory register of arms transfers under the auspices of the United Nations — a recommendation to which the Secretary General attached great importance.

Concurrent with the study, in the summer of 1991 the governments of the European Community and Japan put forward formal proposals for the establishment of a Register of Conventional Arms.

¹⁵ The reporting on this development was extensive, much of it in German. One of the most in-depth treatments in English is Kenneth R. Timmerman, *The Poison Gas Connection: Western Suppliers of Unconventional Weapons and Technologies to Iraq and Libya* (Simon Wiesenthal Center, 1990); and Kenneth R. Timmerman, *The Death Lobby* (Houghton Mifflin, 1991). The best source in German is Hans Leyendecker and Richard Rickelmann, *Exporteure Des Todes: Deutscher Rüstungsskandal in Nahost* (Steidl Verlag, 1991).

¹⁶ United Nations, *Transparency in International Arms Transfers*, UN Disarmament Topical Papers, No. 3 (New York: United Nations, 1990).

¹⁷ 'Bulgarians to Share Data on Arms Sent to Terrorists,' *The New York Times*, 2 August 1990; 'Germany's Trade Surplus Down By 20 Per Cent,' *The Financial Times*, 15 February 1991; 'French to List Export Details,' *Jane's Defence Weekly*, 11 May 1991; 'Belousov Details 'Diminished' Military Exports,' *Tass*, English translation in *FBIS-SOV-91-006*, Foreign Broadcast Information Service, 9 January 1991.

¹⁸ 'Kaifu Calls On UN to Monitor Conventional Arms,' *Defense News*, 3 June 1991; 'Leaders Call for Register on International Arms Sales,' *The Financial Times*, 17 July 1991.

¹⁹ *International Arms Transfers*, UN General Assembly Resolution 43/75 I, 7 December 1988, op. para. 5.

Discussion of these proposals through the fall of 1991 led to the 9 December 1991 adoption of UN General Assembly Resolution 46/36 L, entitled 'Transparency in Armaments,' by a vote of 150-0 (Iraq and Cuba abstained, Syria and China did not vote).²⁰ The resolution established a Register of Conventional Arms, its purpose being to enhance transparency in arms transfers and procurement in order to promote increasing confidence among states and, therefore, strengthen international security. In establishing the Register, the General Assembly declared its determination to prevent the excessive and destabilizing accumulation of arms, while at the same time recognizing the legitimate security concerns of member states.

In accordance with the provisions of Resolution 46/36 L, a panel of governmental experts was formed and met three times between January and July 1992, with a mandate to elaborate the technical procedures necessary for the effective operation of the Register, and to prepare a report on the modalities for the early expansion of the scope of the Register by the addition of further categories of equipment and inclusion of data on military holdings and procurement through national production. The panel completed its work on 17 July 1992, submitting a consensus report to the Secretary General. The report was in turn adopted by the UN General Assembly without a vote on 15 December 1992.

The basic elements of the register were contained in the original resolution and adjusted by the panel of experts. Member States of the UN are requested to submit data by 30 April each year on the number of items annually exported or imported in the previous year, by country, for seven major types of armaments: battle tanks, armoured combat vehicles, large calibre artillery, combat aircraft, attack helicopters, warships with a displacement of 750 tons or above (and any size ship with missiles or torpedoes with a range of 25 kilometres or more), and missiles and their launchers with a range of at least 25 kilometres. (The missile category does not include ground-to-air missiles). All categories include a description of what is covered, including types of accompanying armaments, ranges, and tonnage. The Register also requests that states voluntarily submit background information on their military holdings, procurement through national production, and relevant policies. Its basic philosophy differs significantly from most proposals to deal with the negative effects of the arms trade. Namely, it assumes that it is not possible for states, given the realities of economics and national security, to make *a priori* judgments on a multilateral basis, as to the 'excessive and destabilizing' nature of an arms deal. Arms build-ups occur one deal at a time. It is only *ex post facto*, in a specific context, that such a determination can be made. This is reinforced by the fact that arms deals of the type reported to the Register are legal and legitimate. Stopping

²⁰ For an assessment of the politics of this resolution see Wulf, *op. cit.*, 535-536.

them before they start, in a multilateral forum, will always be difficult, if not impossible. This is not to say that states have not done this *unilaterally*, especially during the Cold War.²¹

There is no obligation to report on an entire range of weapons not included in the Register in its current form: small arms, bombs, munitions, mortars, guns below a certain calibre, missiles below a range of 25 kilometres, ground-to-air missiles, support ships, non-combat planes and helicopters, and others. Moreover, many other forms of arms-related trade are outside the scope of the Register, including major subsystems (especially engines and electronic upgrades), dual-use items and production technologies. Further, the Register is concerned only with legitimate arms trade and does not deal with the growing problem of illicit arms transfers.

Between January and April 1993, the United Nations Office for Disarmament Affairs — the portion of the Secretariat charged with implementing and maintaining the Register — conducted four regional workshops on the Register in Tokyo, Buenos Aires, Warsaw and Florence. The initial aim of these workshops was to bring together those governmental representatives responsible for their government's reporting procedures (frequently involving representation from Member States' Ministries of Foreign Affairs and Defence) in order both to clearly lay out the requirements of the Register to ensure full compliance and to address Member States' questions and concerns in order to facilitate broad participation. The workshops were conducted in an informal manner generally consisting of: (a) a presentation of the Register in its historical and operational aspects; (b) a presentation of current information, publicly available, on arms transfers specific to the region in question and discussion on ways of promoting further transparency; (c) a simulation exercise on the reporting requirements, allowing participants to work through theoretical examples of transfers in order to familiarize themselves with the reporting requirements; and (d) presentations by participants on their government's views on the Register and prospects for further elaboration of its scope. In addition to governmental representatives from the regions addressed in the respective workshops, members of the Panel of Governmental Technical Experts which devised the technical procedures for the effective operation of the Register, as well as representatives of the Permanent Five, were frequently present to lend their expertise and support.

²¹ For an extensive treatment of how states have exercised unilateral restraint see Edward J. Laurance, 'Reducing the Negative Consequences of Arms Transfers Through Unilateral Arms Control,' in Bennett Ramberg, ed., *Arms Control Without Negotiation* (Boulder: Lynne Rienner Publishers, 1993), 175-198.

Results from the First Year of the Register²²

Participation

A major aim of the first year of the exercise was to maximize the number of states participating. Eighty-three national reports, over 45 percent of all member states, were submitted. This was much more than in the older and somewhat parallel exercise of reporting military expenditures to the United Nations. Participation varied significantly by region. In Europe and North America the member states of NATO and the CSCE went on record as supporting the Register and committed themselves to participation and the sharing of reports. On the other hand no state in Sub-Saharan Africa reported any imports. In the crucial area of the Middle East, no Gulf States reported. The significant number of countries not reporting can partly be explained by the fact that in 1992 they traded no arms in the seven categories of weapons of the UN Register, although they were all asked to report even if it was a nil report. The major weapon importers not reporting included Saudi Arabia, Iran, Thailand, Syria, Taiwan (not a UN member state), Bangladesh and Kuwait.

The 83 states submitting reports generally did so at four different levels. Some states participated at a maximum level, using the forms provided with maximum transparency of data and also submitted background information on their military holdings and procurement through national production. A second but small group of states announced their non-participation for some specific reason. In the case of South Africa, it was the UN embargo (still in place). A third group submitted only a *note verbale* covering miscellaneous topics while a fourth group submitted information only on the regulations and policies related to arms exports and imports in their respective states.

The reports also show that exporter participation was greater than that of importers. Of the 192 discrete deals or transfers reported to the Register, 159 (83%) came from exporter reports while only 33 (17%) additional deals originated with importers. This created the situation whereby a significant number of items were made transparent due to the participation of exporters. The non participation of three key states — the Democratic People's Republic of Korea, Syria and Iran — where public information indicated that significant trade in missiles took place in 1992, creates a major gap in government-produced data.

²² The following assessment contains excerpts from Edward J. Laurance and Herbert Wulf, *An Evaluation of the First Year of Reporting to the United Nations Register of Conventional Arms*, Research Report, Program for Nonproliferation Studies, Monterey Institute of International Studies, October 1993. For additional assessments of the first year of reporting see Edward J. Laurance, Siemon T. Wezeman and Herbert Wulf, *Arms Watch: SIPRI Report on the First Year of the UN Register of Conventional Arms* (Oxford: Oxford University Press, 1993); and Ian Anthony, 'Assessing the UN Register of Conventional Arms,' *Survival* 35, 4 (Winter 1993), 113-129.

Of the thirty-three states submitting Background Information, 13 submitted information on their military holdings and procurement through national production of arms in the seven categories covered by the Register. Seven additional countries reported information on their holdings only. Many of these states reported on their security and/or arms transfer policies.²³

Quality of Reporting

The Register allows for verification through cross-checking, as it asks member states to report both exports and imports. It is possible to determine the extent to which the reports of exporters and importers match, especially when reporting the same transfer. Four types of cases occurred in the reports:

- A) The transfer was reported by both exporter and importer and the number of items matched.
– 51 (26%) of the 194 transfers recorded.
- B) The transfer was reported by both exporter and importer but the number of items reported did not match.
– 16 (8%) of the 194 transfers recorded.
- C) The transfer was reported by only the exporter or importer, since the other party participated in the Register process but did not report this particular transfer.
– 70 (36%) of the 194 transfers recorded.
- D) The transfer was reported by only the exporter or importer, since the other party did not participate in the Register process.
– 57 (30%) of the 194 transfers recorded.

This analysis of matching data, when applied to the seven categories of weapons, reveals that for certain categories, exporter and importer states more readily agreed on the specifics of the transfer, as evidenced by a higher level of matching data. In the table below the percentage indicates the level of agreement among exporter and importer as to the *number of items* transferred.

²³ For a thorough assessment of this information see Malcolm Chalmers and Owen Greene, *Background Information: An Analysis of Information Provided to the UN on Military Holdings and Procurement Through National Production in the First Year of the Register of Conventional Arms*, Bradford Arms Register Studies No. 3 (Bradford, UK: Bradford University Department of Peace Studies, March 1994).

Tanks	82%	N= 1733
Armoured Combat Vehicles	32%	N= 1625
Large Calibre Artillery	49%	N= 1682
Combat Aircraft	68%	N= 270
Attack Helicopters	43%	N= 40
Ships	11%	N= 40
Missiles and Missile Launchers	13%	N=67878

States which submitted *arms exports data* did so with varying levels of transparency. For example, of the 24 states reporting exports, 17 opted to use the 'Remarks' column of the form to provide some description of the weapon system being exported. However, when assessing the use of this column by number of transfers reported, only 64 of the 159 exports reported (40%) contained this type of data in the 'Remarks' column. Some states used highly aggregated data, especially in the missile and missile launcher category. While this complies with the procedures outlined in the Report of the 1992 Panel of Governmental Technical Experts (Document A/47/342), in effect it produced little or no information on the actual transfers which occurred.

Discrepancies and Quality of Data: Patterns and Explanations

Lack of Confirmed and Transparent Data. One key to making recommendations for the further development of the Register is to attempt to understand the reasons for the less than expected quality of data in the first year of operation. There are at least six reasons that can be put forward for consideration. The *first* is basic, namely, the lack of participation by states, especially those with major levels of arms imports in the seven categories in 1992. Data on a transfer cannot be confirmed and thereby have optimum validity when one or the other partner to a deal does not participate in the Register. This suggests that efforts in the UN and other international/regional fora to increase participation, in addition to reinforcing the norms established in the resolution, could significantly increase the quality of the data. A *second* reason for the lack of confirmed data is conflicting interpretations of category definitions. For example, Malta reported receiving ships from Germany which did not meet the category definition, i.e., they were below 750 tons and were not armed with missiles. Germany conformed to the procedures and did not report the transfer. So despite the fact that both countries participated in the Register, this data could not be confirmed. Similar problems occurred with the specific categories of combat aircraft and attack helicopters. A grey area is being created by broad Register definitions for attack helicopters (particularly ship-based helicopters) and combat aircraft (armed trainer aircraft). As a result some governments did not report transfers of systems that were publicly reported in sources such as the SIPRI arms trade register as meeting UN Register definitions.

A *third* reason for the lack of confirmed data is conflicting interpretations of *whether* or not a transfer has occurred. Several examples from the first year of reporting make the point. Several states reported receiving ships from the United States, ships that were in fact leased. U.S. national procedures do not define these transfers as a change in control or ownership of the ships and therefore did not report them. A further case of confusion occurred in Europe with co-produced MLRS systems. Some members of the consortium reported them as production, others as transfers.

A *fourth* reason for the lack of confirmed data was conflicting interpretations of *when* a transfer occurred. In the case of a submarine sold by Germany to the Republic of Korea in 1992, Germany reported the export since ownership was assumed by the ROK in 1992. The ROK, however, apparently interpreted a transfer as occurring when the ship was actually under their national control, which they concluded occurred in 1993, and therefore did not report the import of the submarine. A second example occurred between China and Pakistan, who both reported a transfer of tanks from China but differed in the numbers based on differing interpretations as to when Pakistan assumed control of the equipment.

A *fifth* source of lower quality data is the lack of confirmed and transparent data due to a poorly defined category, namely Category Seven — missiles and missile launchers. Some states used highly aggregated data in this category, e.g., 109 missiles and missile launchers exported from Country A to Country B. If the 'Remarks' column did not break these data out by type and/or model of missile, or disaggregate into missiles and launchers, in effect it produced little or no information on the actual transfers which occurred. While this complies with the procedures outlined in the Report of the 1992 Panel of Governmental Technical Experts (Document A/47/342), it violates the basic purpose of the Register. In this case the results may be more dysfunctional than non participation or non reporting since its may add to misperceptions. Since this was a common occurrence and is ripe for a solution in the current deliberations of the 1994 Group, it is useful to suggest several reasons for this behaviour and lack of motivation by states to be transparent about their missile transfers. First, it must be remembered that this is a Register created by the Iraq invasion of Kuwait and its aftermath. Despite the tanks and aircraft in the Iraqi arsenal, it was the missiles — air-to-air, surface-to-air, and above all surface-to-surface (e.g., modified SCUDs) which dominated the concern of the allied coalition which fought the Gulf War and the architects of the UN Register. This category, therefore, is the most sensitive since it can have the most impact on regional conflict. On the other hand, these same missiles possessed not by aggressor states but states concerned only with protecting themselves also view their inventory on missiles critical to that mission. They are expensive and as a result states safeguard them against preemptive strikes. It is not surprising, therefore, that some states would not be too enthusiastic about releasing too much information regarding models and types which could then be translated into capabilities to be countered by enemies. A broad definition of this category

adds additional confusion since there are so many types of missiles, especially when compared to weapons systems such as tanks. And these types have widely varying effects when attempting to determine the presence of an 'excessive and destabilizing' accumulation. A third problem arises in this category because not all types are included, for example, ground-to-air missiles and many types of air-to-air and antitank missiles. Since the reason for this exclusion is not made clear, it detracts from the credibility of the exercise, at least in this category. Finally, a critical and perhaps fatal flaw is the lumping together of missiles and missile launchers. Again, this category has its roots in Iraq, where the SCUD launchers became as important as the reloads themselves. However, as it stands, the category invites states to mask rather than illuminate their transfers in this category of weapons.

What about cheating and deception? Given the reality of national intelligence services, it is highly likely that there are a number of cases where the reporting has increased suspicion. Where an outside observer might chalk up discrepancies to lack of bureaucratic rigor, in reality deception and cheating cannot be ruled out. While it is highly likely that in the aggregate the Register captured 90-95% of the arms trade in the seven categories, the discrepancies are numerous enough to expect that bilateral diplomatic queries as to the veracity of specific national reports have occurred. One can imagine someone in the various national intelligence services drawing the assignment of comparing the Register returns to the intelligence data. But that is one of the purposes of the Register, to make data transparent and then deal with neighbours or others who have doubts about their validity.

As the following chart indicates, there was wide variation in reporting and creation of data by region. Part of this was due to the varying regional experience with transparency exercises and the presence of national bureaucracies, such as those in Europe and North America, accustomed to generating military data of this sort. Regions such as Sub-Saharan Africa are at a comparatively low level of militarization, at least as concerns these seven categories of major weapons, and have little need to have such a data generation capacity at this point in their young history as a system of independent states. In Latin America and some parts of Asia, a different factor may explain the varying levels of participation, namely civil-military relations. Producing transparent and therefore public data for the United Nations may go against the norm and in some cases the laws in these countries, where the military has used its expertise in such areas to guarantee and in some cases force a political role in the country. Finally, one of the critical realities made clear by the first year of reporting is that in the former Soviet Union, national export control systems were in varying stages of development in the wake of the collapse of the USSR. This makes it very difficult to assess the first year of the Register in this region, since the public perception was that of a region awash with the continued production and export of arms, but little was reported to the Register.

Regional Differences: Regional Distribution of Member States Reporting to the UN Register

	Imports		Exports		Background information
	Data included	Nil report	Data included	Nil report	
Africa	0	5	0	5	0
Asia	11	7	2	14	4
Middle East	2	1	2	2	2
Latin America	5	3	2	3	4
Western Europe*	14	6	9	12	16
CIS and Eastern Europe	4	10	7	6	5
North America	2	0	2	0	2
Total	38	32	24	42	33

* Western Europe includes European NATO and neutral countries

Another key factor in explaining the variation in regional participation is indifference, the fact that many states of the world did not view the Register as a relevant process. In some cases this is a result of irrelevant categories of weapons (e.g., Africa, Central America). In the case of the Middle East the Register came on line just as the peace process entered a critical stage. This is also the region that is assumed to be the most volatile and states such as those in the Gulf may simply not find it prudent to participate until more certainty and stability emerges in the region.

Achieving the Objectives of the Register — The First Year

As previously noted the development of the Register in the summer and fall of 1991 was a difficult task for the architects, trying to balance the various perspectives of states in an area of international and national security never before attempted. The resolution itself contains various objectives, some of which were added in order to achieve a consensus. The question which now must be asked is how well these various goals and objectives have been achieved in the first year of operations. Such an assessment is another key element in fashioning specific proposals for further developing the Register.

Transparency and Openness. As indicated previously a great deal of new information was produced in the first year of the Register. An estimate of more than 90% of the actual transfers taking place seems reasonable, although the non-participation of some key importers and exporters and the less than adequate control systems in the former Soviet Union cannot allow complete confidence in such

an assessment. Deals previously unknown to public specialists and NGOs were revealed by the Register and the Register confirmed actual numbers of systems and their year of delivery far beyond what was publicly known. In sum, the fact that most of the actual arms trade was made transparent takes this mode of commerce out of the unknown and into the domain of the United Nations where it can be acted on in public. On the other hand, the lack of transparency in some transfers, especially missiles and missile launchers, detract from the overall goal of openness.

Confidence Building. The fact that 83 states participated in a very new and historic exercise creates an environment of confidence where none existed before on a global scale. The first year demonstrated that states can and will submit transparent military data with little negative effect, either nationally, regionally or universally. The development of a public database of government produced arms trade statistics should give states confidence to continue to submit data and improve the process. One must await the further development of the Register to see the extent of the positive effect of such submission in regard to confidence building. Detracting from this goal of confidence building was the low level of participation in certain regions and the poor quality of data in the missile and missile launcher category.

Universal participation. The Register was developed as a universal and non-discriminatory process, global in scope. Most of the key states in the arms trade did participate. And there is some evidence that there was a chain reaction of sorts, that states became aware of each others reporting activities and did not want to be seen as being left out of this evolving global process. Regional promotion occurred, both as a result of extant regional organizations (e.g., CSCE, EU) and the regional workshops conducted by the UN Office (now Centre) of Disarmament Affairs. Detracting from the achievement of this goal, of course, was the fact that 55% of the member states of the UN did *not* participate. In the case of the Register, participation reinforces the new norms contained in the Register and equates directly with the achievement of this goal.

Prevent excessive and destabilizing accumulations of conventional weapons. As has previously been stated, this is a Register process designed to prevent a re-run of the 1990 Iraq situation, by preventing the excessive and destabilizing accumulation (i.e., build-ups) of conventional weapons. It must be concluded that during the first year of operation of the Register little progress was made toward achieving this goal, for four basic and understandable reasons. First, the Register as currently constructed contains only data on transfers. An adequate assessment of the destabilizing nature of a military build-up requires a baseline (military holdings) and the acquisitions (imports plus procurement through national production) of each party during the year in question. Secondly, it is highly unlikely that in the case of conventional weapons that one year, particularly 1992 when global arms deliveries were lower than normal, would produce a conclusion of 'excessive and destabilizing.'

especially in light of the proximity in time of the Gulf War experience. Rather the Register can only achieve this goal over time. A third reason that achieving this goal is premature is the lack of any consultative mechanism to assist states in determining the presence of excessive and destabilizing build-ups. And finally, even with such a mechanism, all of the states for whom such a determination is critical and relevant must participate in the exercise. The key to achieving this goal is that the determination must be made in context and it would be folly to attempt to develop a consensus definition of 'excessive and destabilizing' which can then be applied to an individual state through traditional diplomatic means.²⁴ Rather, the essence of cooperative security is building on the establishment of a norm such as the prevention of excessive and destabilizing accumulations of arms by developing the structures needed to reinforce the norm and make it operational.

Strengthen Regional Peace and Security. The Register is designed to play a role in bringing about peace and security. As with the previous goal it is clearly premature to talk in such terms. In addition to the points just made, for the Register to succeed it must be integrated into regional and parallel security fora. This must await not only fuller participation but also the further development of the Register.

Promote Openness in Armaments at the National Level. Although not as explicitly developed in the resolution as the previous goals, the Register process is designed to create and promote openness at the national level through the creation of national control and reporting processes. Some states reporting to the Register had to change their national laws regarding the secrecy of military and proprietary information. Others released data irrespective of existing arrangements, especially in respect to commercial relationships. It must be said, however, that many states, particularly those which did not participate in the first year, have not overcome a very firm tradition of secrecy in military matters.

Restraint. A brief review of the analyses and assessments made public of the first year's operation make clear the disappointment regarding the failure of the Register to bring about any restraint in the arms trade. The point was made by both China and the DPRK in the fall 1993 session of the First Committee of the UN General Assembly. Additionally, critics of U.S. arms export policy also make this point. Given the previous comments on the lack of a consultative mechanism to assist in the determination of an 'excessive and destabilizing' arms build-ups, the inability of the Register to bring about restraint is not surprising. No individual state would view its reported transfers as

²⁴ This is exactly what was attempted by key developing states in the Ad Hoc Working Group on Transparency in Armaments of the 1993 Conference on Disarmament session. It was seen by the Western states as a tactic to prevent any serious discussion on transparency, endorsing the point just made in this paper.

anything but defensive and in accordance with Article 51 of the UN Charter. Given this reality, the 'restraint' referred to in the resolution is only likely to occur as a result of this prior determination. Restraint for restraint sake is not a component of the Register process. Rather it is related to a security context that can only be addressed multilaterally.

Early Warning. Although this phrase does not appear in the original resolution, Secretary General Boutros-Ghali made it clear in his 'New Dimensions' speech in the fall of 1992 that the Register could be a useful early-warning instrument in the process of preventive diplomacy.²⁵ The Under-Secretary General for Political Affairs Marrack Goulding, not an ardent supporter of the Register in its early stages, stressed the importance of this function in a statement to the 1993 First Committee session in New York.

The United Nations Register of Conventional Arms may also prove to be a very important instrument of preventive diplomacy. While not a substitute for arms reductions, the Register has introduced a new transparency and could be an important step towards a more comprehensive system of cooperative security.²⁶

As with several other objectives covered in this section of the analysis, its fulfilment awaits the development of some multilateral mechanism or forum in which the data can be addressed. In addition excessive attention on this objective runs the risk of overemphasizing the Register as an intelligence and verification instrument.

Current Status of the UN Register

Some momentum and inertia has been established through a continuing series of UN actions, all taken by consensus. The resolution establishing the Register, 46/36L, was adopted in December 1991 by a vote of 150-0. Of the four states not voting for this resolution, China and Cuba have reported and both are on the 1994 Group of experts charged with further developing the Register. The 1992 Panel developed operating procedures which were adopted by consensus in the fall of 1992. As reviewed above participation in the first year of reporting was more than enough to insure that states would continue reporting the second year. In the fall of 1993 in the First Committee, many states responded favourably to the first year of reporting and urged the further development of the Register. A consensus resolution was passed urging continuation and development of the Register by a new group of national experts.

²⁵ *New Dimensions of Arms Regulation and Disarmament in the Post-Cold War Era*, UN Document A/C.1/47/7, 23 October 1993.

²⁶ Marrack Goulding, Statement to First Committee, 29 October 1993.

In February 1994 this group was constituted by the Secretary General and had its first of three sessions, at the end of which they must write a report to the Secretary General regarding the further development of the Register. Irrespective of how they were selected, the composition of the group has some interesting aspects regarding this work.

1992 Panel

United States	Argentina
China	Brazil
France	Mexico
United Kingdom	Malaysia
Russia	Ghana
Canada	Egypt
Italy	India
The Netherlands	
Japan	
Czechoslovakia	

1994 Group

United States	Argentina
China	Brazil
France	Mexico
United Kingdom	Singapore
Russia	Ghana
Germany	Zimbabwe
Canada	India
The Netherlands	Pakistan
Japan	Egypt
Australia	Israel
Finland	Jordan
Cuba	

First, the emphasis was on continuity, with 15 of the original 17 countries returning. Many of the same people have returned and the Chairman is the same, Ambassador Hendrik Wagenmakers of the Netherlands. This is a sign that the UN work on the Register is not business as (Cold War) usual, when so-called study groups were often rotated among countries as rewards and often seen mainly as exercises in negotiating texts that had little operational impact. Second, with Germany as a member, the six largest arms exporters are in the Group. Third, the addition of Pakistan and Israel insures that the context of two of the regions of the world in which an operational Register could have an impact will be integrated into the work. Also, Pakistan has been a vocal critic of the Register because of its discriminatory nature (e.g., transfers only) and Israel has rarely been included in UN security exercises such as this. The addition of Cuba adds a member who abstained on the original vote to create the Register. It is early in the work of this Group but its composition insures that it will be harder to reach a consensus, and that such a consensus may have a lower common denominator on the dimension of transparency. On the other hand, the inclusion of additional key players in the nexus of arms and stability may mean that any consensus reached may carry more weight with the international community and further the advance of transparency.

The 1992 report spelled out what in essence is the work of the 1994 Group, and at the end of their first session in January 1994 they had reviewed the first year of operation and developed a draft outline which roughly corresponds to the second part of the 1992 report, the modalities for the further expansion of the Register. The resolution also required that this Group be given additional information for use in developing a report on the further development of the Register. The

Conference on Disarmament (CD) was charged with addressing the Register in regards to including military holdings and procurement through national production, defining excessive and destabilizing accumulations, high technology with military applications and making transparent weapons of mass destruction. It completed the first year of its work on transparency in September 1993 and issued a report. There were no decisions reached although several key topics were further developed. The western group and a few other states gave some support to a U.S. proposal to make transparent data on military holdings and procurement through national production. In the end the work of the Ad hoc Committee on Transparency in Armaments during the 1993 CD session was characterized by the group in its final report of 24 August 1993. The Committee 'conducted a substantive exchange of views on a number of complex issues... Many suggestions and working papers were presented on a wide variety of topics, and several of them contained concrete proposals for practical measures to increase openness and transparency. Although agreement has not been reached on these proposals, countries concurred that many of these issues contained therein were useful for future consideration and work...'²⁷ It is unclear at this point if the CD will generate any useful options or reach any conclusions that can be used by the 1994 Group, which finishes its work on 7 August 1994.

Resolution 46/36L also asked individual member states for their views on the first year of operations. Few have been submitted at this point although an upcoming *note verbale* from the Secretary General asking states for their views and urging them to submit a report by 30 April may spur some action. One interpretation of the lack of state views is that only a weak effort has been made by the Secretariat and the key states involved in the Register process to secure such views. Perhaps at this stage in its development, no news is good news. If the problem was the generation of views on a less sensitive and more low politics issue such as the environment or development, more states would give their input. This lack of response also has to be looked at as another indicator of indifference. The Register is not yet seen as a crucial tool for bringing about peace and security.

A final source of information for the Group will be the returns submitted in April for calendar year 1993 exports and imports. Preliminary data will be ready for the second session in the first two weeks of June and a fairly complete submission should be utilized during the last session. At this point the Centre for Disarmament Affairs is developing a first draft of the final report based on the outline mentioned above, to be considered by the Group in its session commencing 1 June 1994 in New York.

²⁷ *Report of the Ad hoc Committee on Transparency in Armaments*, CD Document CD/1218 (Geneva: Conference on Disarmament, 24 August 1993), 14.

Does the Register Address the Arms Trade Trends of the Post-Cold War Era?

Trade in major systems. Having reviewed the first year's operation and the current status of the Register, it is appropriate to ask if the process is addressing the arms trade trends which have evolved since 1991 and the post-Gulf War environment. As mentioned previously, the UN Register is inexorably linked to the role arms build-ups played in the Gulf War. The international arms trade system of the 1980s²⁸ produced the inventories of not only Iraq but also its neighbours, the end result of which was an unstable military balance highly related to the outbreak, conduct and termination of the Gulf War. This linkage is reflected not only in the language of resolution 46/36L but also the seven categories of advanced weapons to be made transparent. 'The focus is on weapons indispensable for surprise attacks and large-scale offensive military actions. These weapons systems are relatively easy to identify, define, record and monitor.'²⁹ One needs to be very careful here to not brand the seven categories as offensive weapons. The previous remarks in this report regarding defining 'excessive and destabilizing' mean that 'offensive' too can only be defined in a certain context. That was one of the reasons the Register was developed, to provide such an opportunity. Nevertheless, these are the categories of systems most likely to cause such situations.

Even if it is assumed that the arms trade system only involves end items in these seven categories (the remainder of this section will question this assumption), the Register falls far short of addressing the trade when it comes to missiles. The inadequacies of this category have been previously addressed in this report and by almost all outside analysts of the Register. As only one problem, ground-to-air missiles are not included. In addition the range limitation of 25 kilometres means that several classes of very lethal missiles (e.g., anti-tank, air-to-air) are basically left uncovered by the Register and any subsequent assessments of arms build-ups. Clearly an excessive accumulation of missiles of these types could be destabilizing. Given that the overall trade in major weapons systems (i.e., platforms) has been steadily declining in the post-Cold War era, acquisition of additional missiles is an obvious step to increase one's military capability. There are other major systems not covered by the Register which, if accumulated in certain regions, could contribute to excessive and destabilizing build-ups. Most of these (e.g., electronic warfare systems, remotely delivered mines, etc.) are mentioned in the second part of the 1992 report which served as a menu for the 1994 Group.

New Commodities. The Register does not address some of the newer trends in the arms trade, especially those commodities which can significantly effect and alter the build-up of military capability

²⁸ For a summary of the rules of operation of this system, see Edward J. Laurance, *The International Arms Trade* (New York: Lexington Books, 1992), 167-69.

²⁹ Wagenmakers, *op. cit.*, 16.

but are not in themselves major stand-alone systems or platforms. For example, given the well-documented shortage of funds which can be used for weapons purchases, recipients are importing upgrades in the form of newer weapons, engines and radars for old platforms already in the inventory. It is not clear how this is to be reflected in the procedures of the Register. Secondly, the Register approach is not well suited for making transparent the early warning and command, control and communication systems which are increasingly being imported as force multipliers. As for trade in the technology itself, in a sense it is being addressed in the Register. Although it is highly unlikely that a military technology register will or can be developed, if the Register does develop into one which makes transparent 'procurement through national production,' the end result of the technology will be made transparent.

The Special Case of Light Weapons. While it is true that increased attention is being paid at the subnational, national and international levels to the negative consequences of transfers of major conventional weapons, especially into areas of regional tension, the opposite is true when it comes to the trade in light weapons. Due to a systemic change in the mode of conflict, from major interstate wars to ethnic and subnational conflict, the demand for light weapons has increased. Combined with the collapse of national export control systems in states possessing a surfeit of such weapons, light weapons, including everything from rifles to land mines to artillery pieces, are now readily available for the host of subnational and ethnic conflicts raging in many parts of the developing world and in particular the former Soviet Union. By all accounts, trade in light weapons — small arms, land mines, mortars, man-portable missiles, etc. — has increased significantly in the post-Cold War era.³⁰ The end of the Cold War has unleashed ethnic conflicts long dormant and controlled by the logic of the Cold War and the concept of client states. Ironically, this increase in trade, and the accompanying negative consequences, is made increasingly visible due to the greater use of UN peacekeeping and peace-making operations, which bring along with it mass media coverage. It has always been the case that in armed conflict it is the light weapons which do most of the killing, and there can be no question that an increasing number of such weapons are getting into the hands of an increasing number of soldiers, paramilitary forces, non-state actors and civilians involved in ethnic conflicts which will not be resolved for a long time to come.

There are some obvious reasons why there is an *increase* in the trade of light weapons. First, the disintegration of the former Soviet Union (FSU) has resulted in the sudden availability of massive amounts of new and surplus light weapons. Second, the FSU is not the only country finding itself with surplus stocks of light weapons. Europe, China and many developing countries find these

³⁰ For two excellent and recent accounts, see Aaron Karp, 'Arming Ethnic Conflict,' *Arms Control Today*, September 1993, 8-13; and 'The Covert Arms Trade,' *The Economist*, 12 February 1994, 21-23.

weapons in surplus, given the end of the Cold War. As many have pointed out, these weapons have not been the subject of formal post-Cold War concern (e.g., CFE, the UN Register) and have found their way into the hands of legitimate and illegitimate arms dealers throughout the world. Third, the breakup of Yugoslavia and ethnic conflicts in the FSU are indicative of the loss of control by major powers over these conflicts. Fourth, these conflicts do not need the high technology weapons so dominant in the Cold War arms trade. Finally, the world economic system is transforming into one characterized by both more legitimate free trade and the development of illicit networks that foster the trade in light weapons as well as drugs and laundered money.

In addressing the applicability of an arms register to light weapons, a brief summary of the characteristics of this trade and the nature of the commodities involved is in order. First, light means small and less visible, meaning that satellites won't help much in detection and verification. This also means that monitoring and control efforts by national governmental officials, from desk officers down to customs officials, is inherently more demanding. Second, these weapons are not very expensive, especially given the trends noted above regarding the availability of these weapons. This means that many more types of participants are active in the trade, and financial transactions are open to less scrutiny. Third, these types of weapons are unlike major weapons in that they have little *political* significance. A possible exception may be the case of U.S. Stingers to Afghanistan, and the recent war in Rwanda.³¹ But in the main, it takes major quantities of light weapons to have an impact. Given the international availability of these arms, a recipient state or non-state actor has the option of multiple sources and eliminating any chance of dependence on one supplier, let alone a national government. In short, the concept of arms and influence does not seem to apply to these types of weapons.

Enhancing the UN Register of Conventional Arms

Resolution 46/36L clearly envisioned that the Register would be further developed. The continuing consensus that has emerged around the first year of the Register reinforces and legitimizes the necessity for further development, and these enhancements to the Register can be usefully grouped into five types:

- Improving the current version of the Register as an arms *transfer* Register;
- Developing the Register into an arms *acquisition* Register;

³¹ For an excellent case study of the impact of small arms on the outbreak and conduct of armed conflict, see Arms Project, Human Rights Watch, *Arming Rwanda: The Arms Trade and Human Rights Abuses in the Rwanda*, January 1994.

- Adding new categories;
- Transforming the Register into a *military capabilities* Register; and
- Developing the Register into a useful *instrument of cooperative security*.

Improving the current version of the Register as an arms transfer Register. As previously discussed, the first year of operation fell short in terms of quality, confirmed and transparent data. This was due to non participation, conflicting interpretations of weapons category definitions, of whether or not a transfer has occurred, of when a transfer has occurred, and one poorly defined category – Missiles and Missile Launchers. Some obvious steps can be taken to improve this situation.

Probably no option is more important than promoting the Register so that universal participation becomes a reality. The level of confirmed data would rise, as would the confidence of states and perhaps the data submitted would become more transparent (e.g., use of the Remarks columns). Steps can also be taken to improve the process of reporting. Options here include improving the agreed upon universal definition of transfers and categories which states use as a basis for reporting, especially if participation increases. This approach has its limits, however, given the variety and levels of development of military forces. A second approach to the definitions problem would be the generation of a master list of specific models and types of equipment in the seven categories. This is the approach taken in the CFE Treaty. However it should be noted that all the worlds countries are involved in the Register, meaning that some pretty ancient equipment must be reported, and the Register includes two additional categories than does the CFE Treaty. Perhaps an intermediate step is the listing of examples of models and types for each category, a distinct possibility if participation increases and raises the confidence of states. A third approach is to improve transparency of national procedures, especially in regard to how states reached decisions as to *whether* or *when* a transfer occurred. One suggestion here is that on the form itself a special note be made urging states to submit such information. This approach increases transparency without the necessity of reaching agreement on universal definitions. It also leaves the door open for states to consult on these national procedures if and when a consultative forum or mechanism is developed.

A significant number of the discrepancies in the first year could be eliminated by increased bilateral and multilateral consultation. As one example, the CSCE agreed to share their reports in 1993 but that was apparently after they had been completed. This sharing could be moved up, especially in a CSCE which already has a computer network which could be adapted for this purpose. And states are always free to consult with each other when preparing their data submissions. A UN Centre for Disarmament Affairs that was more active could be instrumental in this part of the process by conducting seminars for missions in New York and issuing timely reminders of the value of such consultation in producing valid and transparent data. Similarly, data collection at the national level

could be improved with the help of the Secretariat. In this regard the publication of a recent 'how to' handbook is a positive step.³² Timely seminars would also help.

It also became clear that participation in the first year varied significantly among regions. There are many non-reporting states who were either confused by the reporting requirements or indifferent. The above steps designed to improve the level of confirmed and transparent data would go a long way toward achieving more balanced participation among regions. In addition, key supporters of the Register, and in particular the UNCDA, could actively promote the Register. The previously discussed regional workshops were quite successful and need to be expanded to insure all states attend. Finally, increased effort must be made to link participation with the aforementioned goals and objectives. Many states which either did not participate or did so at a minimal level were tempted to view the exercises as transparency for transparency sake.

Developing the Register Into an Arms Acquisition Register. Resolution 46/36 L and the political deals that resulted in its unanimous passage clearly intended that the Register would expand to an *acquisitions* Register at an early date. The first step in such a process is the inclusion of data on weapons that are procured through national production. Pakistan, to use but one example, rightly feels that a Register restricted to reporting imports is discriminatory in the extreme since its regional rival India imports little but produces a great deal. As a first step it would be more palatable for most states if no new categories were added, which would require hammering out a definitional consensus. This will be difficult absent a post-Iraq war environment in which many states felt compelled to go along with a register that they had problems with in the name of coming out politically against the behaviour of Iraq. In short, adding procurement through national production was part of the original bargain and cannot be reneged on at this time.

It should be clear, however, this step will require a new definitional exercise similar to that which took place when developing definitions for arms transfers. The 1992 panel outlined a series of questions that must be answered in this regard.³³ Also the level of difficulty for states in collecting the information necessary for such a report goes up accordingly. Arms transfers involve international trade and most states have developed laws and procedures which allow for the relatively easy generation of information. When it comes to procurement through national production, in many states this involves complex relationships and contractual arrangements with private firms. There is a much greater variety of stages in procurement that will create confusion, probably meaning that no

³² United Nations Centre for Disarmament Affairs, *Register of Conventional Arms: Information Booklet* (New York, 1993).

³³ UN Secretary General, *Report on the Register of Conventional Arms*, UN Document A/47/342 (New York: United Nations, 14 August 1992), paragraph 41(f), p. 18.

universal definitions can be established for this type of data. Rather, the method mentioned earlier will be even more appropriate, namely states submit their rationale for the generation of data on weapons procured through national production.

The final pillar of an acquisitions Register will be the submission of the military holdings (inventory) of each state participating in the Register. The objective of preventing 'excessive and destabilizing accumulations of conventional arms' cannot be achieved without an assessment that in the end must rely on the baseline that military holdings provides. It should be noted that the United States has submitted such a proposal in the CD.

One way of addressing the excessive and destabilizing accumulation of armaments is to highlight and examine States' military holdings and procurement through national production. To that end, the United States proposes the following international data exchange of military holdings and procurement through national production.

The actual proposal calls for data to be exchanged on the seven categories defined in the Register, and encourages states to include type, names, general descriptions and photographs of the equipment listed.³⁴ Additionally a precedent was set in the 1992 submissions when 13 states submitted such data, for the same seven categories established for arms transfers.

It should be noted that with holdings the Register is getting at the heart of a nation's national security. One should expect even less transparency for this type of data. States will have to trade off this concern with that of being a participant in a universal, non-discriminatory international confidence building measure (CBM). For this category of data there will be even *more* definitional and data collection problems at national level. As with procurement data, the 1992 panel listed a host of questions in its report in this regard.³⁵

Adding New Categories of Conventional Weapons. An enhancement that would effect both of the above would be the addition of categories for transfers, procurement through national production and holdings. From the beginning of the exercise in the fall of 1991, disputes arose as to what type of weapons were to be made transparent. In essence it was the Western architects of the Register who settled on the five CFE categories plus ships and missiles and missile launchers. They are roughly those major systems that can be used in cross-border attacks (e.g., the Iraq invasion of Kuwait). As with procurement, a bargain was struck that the language of the resolution would include in the mandate of the experts group (1992 and 1994) that they could adjust these seven categories and add

³⁴ United States, *Working Paper by the United States on an international data exchange of military holdings and procurement through national production*, CD document CD/TIA/WP.4, 18 May 1993.

³⁵ *Ibid*, paragraph 41 (a-e), p. 18.

new ones. It was not made clear on what basis such additions and adjustments would be made. In effect this has created the situation in which it has become difficult for a consensus to occur on adding any new weapons system to the Register. The 1992 report contains a list of such weapons to be considered by the 1994 Group and is reproduced below:

Aerial refuelling aircraft
 Unmanned air-breathing vehicles
 Reconnaissance aircraft
 Ammunition
 – Precision-guided
 – Cluster bombs
 – Fuel-air explosives
 Airborne electronic warfare equipment
 Ground to air missiles
 Remotely delivered mines
 Close-in anti-missile defence systems
 Other systems of delivery for weapons of mass destruction
 Airborne early warning and command and control systems

The origin of this list is instructive for the further development of the Register. The process of adding weapons to this list was simply any weapon that had been discussed in the 1992 panel as a candidate for the 1994 Group to consider. At several of the workshops government representatives asked as to the origin of this list and they did not receive an answer, probably because there isn't one. In short, the above is a cumulative list, a combination of items that individual states felt critical in their regional context. It should also be said that some items were added by states that felt (correctly) that they had been left out of the categories decision in the fall of 1991. This may result in adding a weapon system to the list more for the purpose of creating a consensus than for its military importance. No over-arching principle for adding weapons types to the Register emerged from this process.

One criteria which could be used for adding categories is the reasonable probability that 'excessive' accumulations of weapons in the proposed additional category could be destabilizing in most regional settings. For example the Under Secretary General for Humanitarian Affairs has officially asked the Chairman of the 1994 Group to consider adding land mines to the Register.³⁶ The 1992 Group listed 'remotely delivered mines' as a candidate for an additional category. Using this criteria the proponents of such a change would have to make a case that these systems could be acquired in such

³⁶ For a thorough treatment of the landmine issue and the ongoing action in the United Nations, see The Arms Project of Human Rights Watch and Physicians for Human Rights, *Landmines: A Deadly Legacy* (New York: Human Rights Watch, 1993).

quantities as to be 'destabilizing.' Critics of this approach point out that the key to determining the presence of destabilizing arms build-ups lies in the context. In some regions a certain type of weapon (perhaps one not currently being reported) may be the key to instability. This argues for a wide variety of weapons categories. On the other hand such an approach would mean requiring states to make transparent an excessive amount of data that would be irrelevant in most cases. This runs the risk of increasing non participation. In short there must be a reasonable chance that states can report on these new categories.

Transforming the Register into a Military Capabilities Register. When the Register was created in 1991, a coalition of developing states made the case that a Register which did not include weapons of mass destruction would be discriminatory, particularly in some specific regions. Needless to say this caused significant problems for the major powers. Among other things the Gulf War was about conventional weapons. Weapons of mass destruction have been dealt with by the various Security Council resolutions, UNSCOM and the IAEA. In addition there are a host of legal instrumentalities (e.g., NPT, CWC) which deal with these types of commodities. The expedient solution was to assign this problem to the CD for study. The two experts groups are charged with 'taking into account the work' of the CD in this regard. Even if the CD were to recommend that weapons of mass destruction be added to the UN Register of Conventional Arms (highly unlikely), the 1994 Register group is under no obligation to accept this recommendation.

The CD could take actions which would release this pressure to include weapons of mass destruction in the UN Register. For example during the 1993 CD session 'Argentina proposed a supplementary register for the comparison of information obtained from the implementation of relevant treaties and agreements concerning weapons of mass destruction. The proposal would consist of a consolidated report of already existing, publicly available information on the degree of implementation of multilateral and bilateral agreements dealing with weapons of mass destruction... (It) would aim at providing the international community with an official source of information on the actual situation concerning weapons of mass destruction.'³⁷ Developing countries, to include Algeria, Cuba, Egypt, India, Indonesia, Iran, Kenya, Mexico, Pakistan, Sri Lanka and Venezuela, supported this proposal and as could be expected, the nuclear weapons states are opposed. The German government has also proposed a Nuclear Weapons Register.³⁸ As of March 1994 the Germans have not elaborated on this concept. Apparently the Egyptian government is very interested in this idea and is pressuring the Germans for details. Should the German proposal surface in some concrete form in the CD, it would provide a venue for the discussion of this issue and in effect remove it from the UN Register

³⁷ CD 1993 Final report, *op. cit.*, 13-14.

³⁸ Quentin Peel, 'Germany Calls for Tougher N-Proliferation Curbs,' *Financial Times*, 16 December 1993.

of Conventional Arms process. Given the lack of support for including weapons of mass destruction in the UN Register, this would be a welcome development.

Resolution 46/36L also asked the CD to take up the question of including technology with military applications as part of the Register. Several problems with this approach are evident. First, the question of technology transfer in general has surfaced as a major north-south issue in the post-Cold War era. In short, the north continues to insist on controlling the export of sensitive technology to those states which may want to develop weapons of mass destruction. In response the south feels that such behaviour is discriminatory and hinders their economic development, especially when the technology is dual-use in nature. The debates occurring in both the First Committee and the UN Disarmament Commission in this regard make this clear.³⁹ Hence, any attempt to register such technology will exacerbate this conflict.

Knowing this the architects of 46/36L also pushed this issue on to the agenda of the CD. As with weapons of mass destruction, no conclusions or concrete proposals emerged in the 1993 CD session. In essence the debate in the First Committee and the UNDC was replayed in the CD.⁴⁰ Given this evidence it is clear that making technology transfers more transparent, let alone integrating such an effort into the UN Register, is highly unlikely.

But such a conclusion fits with the overall philosophy of the Register, that is, a focus on end items acquired and put into the inventory of states, items that can not only be easily reported but also more readily associated with the prevention of conflict, the major goal of the Register. If the Register remains an *ex post* Register, technology transfer by itself has no meaning except that it eventually ends up in a major weapons system that is part of a 'registered' national accumulation, which may or may not be destabilizing. This is not to say that supplier cartel/control mechanisms such as COCOM, the Nuclear Suppliers Group (NSG) or the Missile Technology Control Regime (MTCR) do not or cannot serve the purpose of preventing 'rogue' states from acquiring technology which would allow them to manufacture weapons of mass destruction, their delivery systems, or perhaps advanced conventional weapons that would clearly destabilize a region. Rather, such technology transfer control schemes cannot be part of a confidence building mechanism which is universal and nondiscriminatory. At some future point a consensus may emerge that certain technologies, which can be easily and clearly identified as military in nature, may contribute directly to national accumulations which are 'excessive and destabilizing.' For example, this might be true for early warning and C³I applications. But for the moment such technologies are dual-use and cannot be

³⁹ For a summary, see Wagenmakers *op. cit.*, 20.

⁴⁰ For a summary see 1993 CD Final Report, *op. cit.*, 12-13.

included in a transparency mechanism such as the Register. In the words of Ambassador Wagenmakers:

An effective transparency regime can, over time, prove to be the key to a transition from the 'denial approach' to 'conditioned access' to necessary armaments for self-defence. ...It is this notion of 'conditioned access,' coupled with self-restraint, that ultimately provides the best model in the long run if we are to achieve freedom of access to all states to technology which enhances their development, while taking into account the often competing impulses of respect for commercial enterprise and proprietary rights on one hand, and respect for the principles of non-proliferation on the other.⁴¹

Developing the Register Into a Useful Instrument of Cooperative Security. Resolution 46/36L, the 1992 report establishing the procedures for the Register, and the subsequent resolutions urging the continuation of the Register effort, speak almost entirely to the question of establishing openness and transparency in the field of conventional armaments. The only reference or mandate for how this newly transparent information is to be used to achieve the overall goals of the Register, e.g., preventing excessive and destabilizing accumulations of conventional armaments, is in paragraph 4 of the Annex to 46/36L: 'The Register shall be open for consultation by representatives of Member States at any time.' On the one hand this is testimony to the philosophy of the architects of the Register, that progress must be incremental. First we must create transparency and then deal with the question of how to utilize the information. But from the beginning of the exercise it became clear that how the data were to be used was a question that many states wanted answered prior to, or at least concurrent with, submitting data on their exports and imports. This may also be the approach of those states which did submit data during the first year but did so at a minimal level of transparency. So it may not be possible to totally avoid the question of using the data, and transforming the Register from a database on conventional arms to an instrument of cooperative security must be dealt with as the Register itself develops.

Regional registers as a supplement to the global Register

One approach is to apply or adapt the Register approach to specific regions. The 'regionalization' of the Register has been a part of the exercise from the beginning. Paragraph 17 of 46/3L 'Calls upon all Member States to cooperate at a regional and subregional level, taking fully into account the specific conditions prevailing in the region or sub region, with a view to enhancing and coordinating international efforts aimed at increased openness and transparency in armaments.'

⁴¹ Wagenmakers, *op. cit.*, 20-21.

During the deliberations of the 1992 panel which adjusted the category definitions and developed the operating procedures, several interventions from developing countries made the point that the seven categories of weapons systems were at such a high level of capability that they excluded most of the conventional arms being 'excessively accumulated' and used in regional conflicts, especially in places such as Sub-Saharan Africa and Central America. During the workshops held in the spring of 1993 by the UN Office for Disarmament Affairs, Member States not on the panel also made it clear that regional factors must somehow be integrated into the process. For example Ambassador Karmal of Pakistan openly questioned the origin of the weapons categories and doubted their applicability to the South Asian region.⁴² And of course there is the example of the CSCE procedures of sharing information on conventional weapons inventories and troop locations, as well as the Open Skies agreement. As previously mentioned the submission of data to the Register in the first year varied widely by region, providing further evidence that regionalization of the register process may well bring immediate dividends. In a recent address to the UN Advisory Board on Disarmament Matters, the UN Secretary General provided the strongest boost yet for this approach. 'Regional registers should now be the next step. They have the advantage of allowing the categories of weapons to be registered to reflect the security concerns felt in the region.'⁴³

What would be the specific advantages of regionalization?⁴⁴ One can assume that states in a particular region share similar approaches to transparency and openness. In Latin America for example, the role of the military has been traditionally strong, resulting in a reluctance to release military information. A process which focuses just on Latin America may well increase participation. Second, many regions already have mechanisms and organizations in place into which the register approach could be integrated. Many of these organizations are formally linked to the United Nations, which itself has begun to reemphasize the role of regional security organizations as part of the new UN.⁴⁵ Third, the causes and conduct of armed conflict vary significantly by region. This is particular true of the categories and types of weapons whose excessive accumulation are the object of the register process. Also, in those regions where security questions can be regionalized, the register process can be easily integrated, a step that is critical if the register is to go beyond mere

⁴² Ambassador Ahmad Karmal, 'Transparency in Armaments: A Regional Perspective,' *Transparency in Armaments: The Mediterranean Region*, Disarmament Topical Papers 15 (New York: United Nations Office for Disarmament Affairs, 1993), 47-50.

⁴³ *Address of the Secretary General to the Advisory Board on Disarmament Matters*, United Nations Press release SG/SM/94/3, 12 January 1994.

⁴⁴ For the pros and cons of regionalization of the UN Register see Joseph DiChiaro, *The Regionalization of the UN Register of Conventional Arms*, paper presented to the annual meeting of the International Studies Association, 30 March 1994.

⁴⁵ For an important example see UN Secretary General, *An Agenda for Peace*, UN Document A/47/277 (New York: United Nations, 17 June 1992), 17-19.

collection and dissemination of data on conventional arms. Fourth, the arms acquisition culture and processes tend to be region-specific. In some cases the major arms exporter countries play a crucial role and would have to be integrated into the process. In other regions this is not the case. A regional approach could control for such differences.

On the other hand, there are disadvantages to the regional approach, especially if it would mean a diminution of the global effort. For one thing, most conflict scenarios involve weapons imported from outside the region. Care must be taken that these suppliers are integrated into the process. Second, a great deal of the support for the global UN Register process has come from the developing world, who see this as an opportunity to challenge the industrialized world to cut back on its own military effort so that economic assistance can be increased. The global approach also allows some states to use the Register as a more general political pulpit. Third, key regional actors have traditionally called on disarmament and arms control mechanisms to be universal and nondiscriminatory. The Register has the makings of just such a mechanism and it would hardly make sense for the developing world to abandon the effort. In essence, the two approaches can supplement each other.

Developing a Global Consultative Mechanism

Be it regional or global, converting or developing the Register into a cooperative security regime involves a similar set of steps. Much has been written and proposed in the way of cooperative security regimes since the end of the Cold War. The CSCE has added structures and processes which push it a long way towards a genuine cooperative security regime. While no consensus has emerged regarding a formula for cooperative security, Chayes and Chayes have come pretty close in a recent conceptual chapter to the book *Global Engagement: Cooperation and Security in the 21st Century*.⁴⁶ They have identified five central elements which can serve as a guide as to where the Register is at the moment and how it can develop into a consultative mechanism for the accomplishment of higher level objectives.

- 1) A strong normative base
- 2) Inclusiveness and non-discrimination
- 3) Transparency
- 4) Active management
 - Information Management
 - Policy review and assessment
 - Capacity building

⁴⁶ Brookings Institution, 1994.

- Interpretation and dispute settlement
- Adaptation and flexibility

5) Sanctions

The second and third elements, transparency, inclusiveness and non-discrimination, are central to the Register and have been discussed. More important for the development of an effective consultative mechanism are the questions of norms and active management.

Norms

For the Register to develop or be incorporated into a cooperative security regime, it must be based on *norms* agreed to by the majority of the states participating in the Register and any follow-on consultative mechanism. What are these norms likely to be? It is not surprising that the norm of international peace and security appears prominently in resolution 46/36L, since this norm is the basis for the UN Charter itself. Few will argue that this norm has legal status. The key question that has been asked throughout the history of the United Nations is how this norm is to be achieved. Does resolution 46/36L contain norms of behaviour which if followed could achieve this larger goal? For one, it could be said that even at this point the norm of transparency and openness in the form of public disclosure of sensitive military information, currently that of arms exports and imports, has begun to take hold. It is mentioned early and often in resolution 46/36L. Additionally, eighty three countries participated in the first year of the Register, including all of the major supplier states. Increased participation, both horizontally (more states) and vertically (more information) will enhance the development of this norm.

But there are other norms embedded in 46/36L that have the potential to develop, indeed must develop lest the register process stall at the level of data production. For example, the first preambular paragraph states 'Realizing that excessive and destabilizing arms build-ups pose a threat to national, regional and international peace and security, particularly by aggravating tensions and conflict situations, giving rise to serious and urgent concerns.' This phrase 'excessive and destabilizing' appears in paragraph 2, paragraph 4(a), and paragraph 12. Also appearing through out the resolution is reference to 'restraint' by states in exporting and importing armaments. As previously mentioned in this report, this resolution stems directly from the Iraqi experience. In a sense it is the codification of the norms deemed by the international community to have been violated by Iraq.

At this juncture in the history of the Register, the only support for the norm of preventing excessive and destabilizing accumulations is the fact that 150 countries voted for the resolution. This brings up the question of the role of General Assembly resolutions in the development of international

norms and law. Such a discussion is beyond the scope of this paper but must be addressed in a summary fashion since the sole source of norms in this case is resolution 46/36L and subsequent adherence to its procedures by states. Levi's basic international law text states that UN General Assembly resolutions:

reflect a majority consensus about (but not necessarily consent to) expectations of future state behaviour and may eventually become law...these resolutions have some effect upon the behaviour of states as soft law or as a means of social communication. In examining the practice of states, one can assume that in any case two conditions must be fulfilled for these resolutions to approximate the making of law. First they must refer to principles and norms suitable for generalization. Second, they must be credible...the majority passing these resolutions must contain most or many of those states needed to make them operative. In sum, international organizations can contribute to the growth of law. They do not make law.⁴⁷

The two conditions stated above seem to be fulfilled for resolution 46/36L. One hundred and fifty states agreed to the norms of transparency and openness, and the prevention of excessive and destabilizing accumulations of conventional arms. Within that 150 are all of the major arms supplier states. As previously mentioned, some key developing countries objected to the resolution in its initial form but the final product reflected their concerns, enabling the vote of 150-0.

Janis' basic international law text provides additional insights into the role of General Assembly resolutions in the development of norms. He first points out that the UN Charter empowers the General Assembly to 'initiate studies and make recommendations for the purpose of promoting international cooperation in the political field and encouraging the progressive development of international law and its codification.' But the voting behaviour of the Member States may also assist in the development of norms. 'The vote of a state on a matter before an international organization is itself an act of that state, and the balloting of many states on a specific question may in some circumstances illustrate a consensus about a customary rule.'⁴⁸

Active management

The first aspect of managing a cooperative security regime is information management-collection, evaluation, verification and analysis. In the case of the Register this task will be onerous. The collection function is underway, with the UN Centre for Disarmament (UNCDA) establishing a

⁴⁷ Werner Levi, *Contemporary International Law* (Boulder: Westview Press, 1991), 48-49.

⁴⁸ Mark Janis, *An Introduction to International Law* (Boston: Little Brown and Company, 1993).

database where data on exports and imports from the forms submitted by each country are entered. But as the first year's experience demonstrated, even this most simple of tasks can create problems. Some states did not participate because the form and its associated procedures were not clear. Although they did conduct workshops, UNCDA did not feel that they had the mandate to be proactive in soliciting submissions, given the voluntary nature of the Register. More importantly, several of the major powers on the 1992 panel insisted that the 1992 report outlining the procedures for the Register specifically limit the role of UNCDA, even in this most mundane of tasks. As a result, Colombia submitted its inventory of weapons using the arms import form, and there was little that UNCDA did or could do to let Colombia know of this error in reporting. And there were other examples where a state mis-reported items by putting them in the incorrect weapons category. But the most important effect of this restricted role was in the collection of data. UNCDA is still reluctant to remind member states of the responsibilities that they themselves agreed to in 46/36L. For example, the 1994 group is charged with taking into account the views of individual Member states on the first year of operation of the Register and its expansion. This seems like an ideal opportunity for the administrative arm of an organization to become proactive and solicit such views. This has not happened.

As for the evaluation and analysis of the data, UNCDA is even more proscribed from conducting this type of function. Some of this is a function of the 'Cold War UN' where the superpowers, especially the United States, insured that any attempt by the UN to develop an independent analytical role, especially in security and disarmament matters, was squashed even before it got started. An illustration of the effects of such a role came during the publication of the report in October 1993 of the results from the first year of operation of the Register. All through the summer of 1993 states were submitting their returns. UNCDA had set up a database and found it easy to enter data, almost in real time. But when it came time to compile the data for the required report to the Secretary General and the public at large, UNCDA felt that their 'receive and compile' mandate allowed them only to reprint the forms submitted by the Member States. This resulted in a very long report (over 100 pages), with the only analysis being a chart showing which countries had participated and the type of information submitted by each.⁴⁹ The director of UNCDA and the head of the 1992 Panel, Ambassador Wagenmakers (who was in New York for the First Committee meetings) held a press conference to publicize the historic nature of the report and declare it a successful first step. Some 20 journalists were in attendance and asked in vain for a summary of the report. Which country exported the most weapons? Which regions imported the most? Did China report? Did everybody

⁴⁹ UN Secretary General, *United Nations Register of Conventional Arms*, UN Document A/48/344 (New York: United Nations, 11 October 1993).

tell the truth? To all of these questions these men had to defer to public sources,⁵⁰ despite the fact they both had been intimately familiar with the data for at least a month. As of October 1993 the UNCDA did not feel that it could even rank order exporters and importers based on the official data.

As for verification of the data, previously addressed in this report, the UNCDA has an even more sensitive problem on its hands. First, the Register is a confidence building mechanism in which verification per se is up to the Member States. It is not an arms control treaty with a verification body. As has been shown earlier in this report, however, it is possible to compare export and import reports to 'verify' the data up to a point. For similar political reasons, UNCDA did not conduct such an analysis, leaving it to Member States and NGOs to use the raw data of the report to draw such conclusions. These latter bodies are quite capable of doing so and the analyses produced were quickly accepted as valid and useful. But it only served to highlight the minimal role of UNCDA in an information management role. It should be added that UNCDA has recently added staff experienced in such analysis, increasing its *capability* to do much more in the way of information management. This will certainly produce valuable internal assessments but it remains to be seen if this capability will translate into a more proactive role for UNCDA in the management and promotion of the Register as envisioned in the Chayes and Chayes cooperative security scheme.

As for the other components of the management function — policy review, capacity building, interpretation and dispute settlement — the ground work for such a development has yet to be started. Even if the UNCDA role in information management should grow to the point where it can be more proactive in enhancing participation and conducting analysis, the large question remains. What is to be done with the information? How will it be used to accomplish the consensus goals of 46/36L, preventing the excessive and destabilizing accumulations of conventional weapons? Resolution 46/36L assigned this task to the CD in paragraph 12: 'Requests the Conference on Disarmament to address as soon as possible the question of the interrelated aspects of the excessive and destabilizing accumulation of arms.' As can be seen from a perusal of the final report of the 1993 CD, this is and always has been an impossible task. China, Algeria and Egypt pressed to identify a 'common understanding' of the concept, while most other states felt that it was either impossible, very difficult or premature to attempt such a definition.⁵¹

⁵⁰ By this time Laurance and Wulf had published their analysis of the first year of reporting. Also publishing reports were BASIC, *Moving Toward Transparency: An Evaluation of the United Nations Register of Conventional Armaments* (Washington: British American Security Information Council, October 1993); Malcolm Chalmers and Owen Greene, *The United Nations Register of Conventional Arms: An Initial Examination of the First Report* (Bradford, UK: Bradford University Department of Peace Studies, October 1993).

⁵¹ 1993 CD Final Report, *op. cit.*, 7-8.

Central to the development of the Register is answering the question who or which body will determine what is 'excessive and destabilizing'. If the question can only be answered in relation to a specific region or context, how will this be done? One response is traditional diplomacy. States concerned with build-ups will confer, jawbone, cajole, threaten, promise, in short use the tools traditionally available to states. However, it would seem that the Iraq war and its descendant, 46/36L, pushes the international community beyond such an approach. If one assumes that most of the Iraqi arms build-up was generally known by states, the 'traditional diplomacy' method failed.

What is needed is some sort of consultative mechanism beyond traditional diplomacy, an established body which would meet regularly to address the data in the Register. What would be the purposes of such a mechanism? First, the establishment of some permanent or established body would lower the political (and economic) costs of addressing excessive and destabilizing arms build-ups, particularly if such a process is to be part of the UN system. One can imagine the turmoil on the floor of the First Committee if country A demands that an experts group be commissioned to look into an arms build-up in country B. Country B would object, based on the legitimate point that the mere fact that they submitted their data to the Register is indication that the acquisitions reported were legal and legitimate. A way has to be found whereby the questioning of build-ups is part of confidence building. A recent example of this problem is the acquisition of a Russian submarine by Iran. Russia, Iran and an incensed and worried United States all weighed in with the rationales for supporting or objecting to this transfer. But this 'exchange of views' took place in public with a maximum amount of rhetoric and little in the way of confidence building. Had a consultative mechanism been available states would have been more free at a much lower political cost to address the issue at hand. Iran may well have presented arguments which could have persuaded the US and other interested regional states that it was a legitimate purchase. If fears persisted, perhaps such a consultation would have led to further transparency measures in the region which could have reassured the concerned parties.

A consultative mechanism could also regularize the determination of excessive and destabilizing by recruiting a set of non-governmental experts to render objective assessments of military balances. Gradually this body of experts could gain the confidence of states concerned. It might be possible for such a mechanism to serve as the focal point for the consideration of new categories and types of weapons to be added to the Register. Such a process would also allow the integration of perceptions into the determination of excessive and destabilizing accumulations, a particularly important point given that such accumulations only occur in a specific regional context. This consultative mechanism would have to insure that all parties to any issue raised would be a participant, avoiding the situation illustrated by the Iran submarine case illustrated above. This puts additional emphasis on the importance of a non-discriminatory mechanism. In sum, the consultative mechanism must be a setting or venue which serves as a focal point for raising issues and building

confidence. It must serve to resolve questions that states may have about build-ups. And in the end, it must be able to accomplish the goals put forth in the Chayes and Chayes model, that of interpretation and dispute settlement.

Some models and options

Ad Hoc Multilateral Group. A first approach to creating such a mechanism would be the convening of a multilateral group, which would represent the traditional diplomatic approach. This would require little in the way organizational development but would not go beyond the situation now in place. Staying with the Iranian submarine example, is it likely that all of the interested parties would meet to discuss this issue? Those favouring the transfer (Russia and Iran) may not want to admit any to any problem by attending such a meeting. Given current US-Iranian relations, the US might not be able to convene such a meeting. In short, traditional diplomacy still works but as we saw in the case of the P-5 talks, the 'traditional' approaches have inherent weaknesses. In any case 'traditional' usually implies secrecy, the exact opposite of the transparency and openness which is the goal of the Register.

UN Disarmament Commission. The UN Disarmament Commission is already established, is universal in membership, and has a mandate to deal with issues such as those which emerge from the Register process. The disadvantages are that it is at the moment only a debating society with no power to pass resolutions which stand a chance of influencing states' behaviour. One option may be to establish a sub-group of the UNDC which could be charged with rendering judgments and interpretations as to military build-ups. The lack of enforcement potential remains a serious drawback to using UNDC as a consultative mechanism.

Conference on Disarmament – Geneva. The CD has been active for the past two years in discussing and making recommendations as to the development of the Register. Disarmament is the sole concern of the CD and they have extensive negotiating experience. Expert groups assembling in Geneva in support of the CD are common practice, so one could contemplate an annual session to evaluate the Register data with the support of military analysts. But, as previously discussed, the progress in the CD on the question of expanding the Register has been minimal. The procedures employed by the CD are very cumbersome, although the speed at which they are negotiating the CTBT may bode well for a change in the efficiency of this organization.

Annual Review Panel. Since the Register process has already convened two panels or groups of experts, perhaps an annual review panel could be built into the process. It would be modeled after the first two panels, i.e., geographically as well as functionally representative in regard to the

acquisition of conventional arms. It should include the leading producers, exporters and importers and include representatives from all regions where 'excessive and destabilizing' accumulations might occur. In addition to governmental 'experts' it should include consultants who are specialists in analyzing military balances. If it was an annual panel, which met for a week in the fall of each year, it would have the latest data and could take advantage of the fact that the First Committee meetings usually involve the top security experts from each Member State. It would have the advantages of a 'stand-alone' organization,⁵² that is an independent entity unencumbered by previously established procedures and other aspects of organizational culture. It would also overcome the problem of assigning analytical, interpretative and dispute settlement tasks to the UNCTDA, which would perform a support role for this panel. The disadvantages would be a reluctance to establish yet another organization to deal with security and disarmament issues.

GATT-Like Panel. If the norm development analyzed above comes to pass, i.e., states continue to reinforce the norm of transparency by submitting more data to the Register and eventually agree to take actions to prevent excessive and destabilizing accumulations, it is possible to contemplate using the approach of the General Agreement on Tariffs and Trade (GATT), soon to become the World Trade Organization (WTO). GATT is an agreement in which Member States agree to a certain set of norms in the form of fair and open trading practices over a range of specific commodities. Should any state object to the practices of any other, this state may formally bring the complaint to GATT, which then initiates a dispute settlement process. The first step is for GATT to host a face to face meeting with the concerned parties, in an attempt to have them settle 'out of court.' Should this fail, the dispute is then evaluated by a panel of independent and disinterested experts, which decides in favour of one party or the other. These rulings have gained in weight over the years, along with the growth of the consensus on the norms established by GATT. When the WTO takes effect in 1995, these rulings will be binding on members.

The Register process is only beginning to develop a set of norms which could be utilized by such a panel. But this approach has some clear advantages. First, while the process would be a permanent part of the UN system (perhaps part of UNDC or the CD), it only would meet when there is a complaint. In the case of the Register, a state might use such a system to query a particular state on a particularly troublesome acquisition (e.g., the Iranian submarine). Second, if like in GATT all member states agree to such a procedure, there is little political cost in convening the panel. Third, it does not require a permanent set of experts. In GATT there is a roster of experts who serve on

⁵² I am indebted to Ron Cleminson of the Canadian government who has used this term, as well as 'stand beside' and 'stand within,' in describing options for an international verification agency in support of a nuclear test ban treaty.

these panels on a rotating basis. Finally, the decisions reached do not have to be binding. One must remember that it took GATT almost 50 years to get to this point.

Proposals

The above discussion of the enhancement of the Register contains numerous proposals and suggested changes to the Register. The following set of broad proposals serve to summarize the major avenues of developing the Register.

I. Data on procurement through national production and military holdings must be added to the Register process as soon as possible. First, this was the political agreement made which resulted in the vote of 150-0 on 46/36L which established the Register and its norms of transparency of information on conventional armaments and the prevention of excessive and destabilizing accumulations. Without this step the Register process will quickly fade into irrelevance. Second, accomplishing the major goal of the Register, preventing destabilizing arms build-ups, cannot be achieved with arms transfer data alone. It is also very important that the level of obligation to submit transparent data must apply equally to all three types of information.

II. The UNCDA must be given a specific mandate and increased role to reduce the discrepancies uncovered in the first year of reporting. This must be seen as a technical or administrative mandate with the goal of maximizing the accuracy of data submitted. Emphasis should be placed on things like submitting data in the correct categories, entering imports in the correct format, etc. To this end UNCDA should have the authority to contact states on a bilateral basis when they detect errors in reporting. They should also establish periodic workshops in the spring of each year, designed to give tutorials to those governmental officials charged with submitting data. If possible these workshops should be in the respective regions, but holding them in New York for the national missions would be a start.

III. Consideration should be given to UNCDA or a sub-group of interested states offering assistance to states in the submission of data. This is the essence of Chayes and Chayes function of capacity building. Such a function might include training of military analysts.

IV. The Register must be more vigorously promoted, since this report concluded that a significant number of states did not participate due to indifference. UNCDA could have a role in accomplishing increased participation by taking more seriously its role as the representative of the Secretary General. For example it could be proactive in soliciting views of Member States as mandated in

46/36L, and such a mandate could be extended each year in a General Assembly resolution. Those key states supportive of the Register should also consider *de marches*, handbooks, conferences and any other mechanism which would serve to publicize the Register. States still reluctant to participate should be the primary targets of such efforts.

V. In addition to participation, the norms of the Register process should be vigorously promoted. Past and current build-ups could be noted in publications, conferences and workshops. The global community needs to be convinced that excessive and destabilizing accumulations, beyond Iraq, remain a real threat to international security.

VI. The UNCDA must be given increased responsibility in the area of information management beyond that noted in proposal II. It must be charged with evaluating and verifying submitted data, at least at the level of producing those basic assessments which NGOs and Member States will routinely produce. They should be able to tell the world who exported the most arms, which country owns the most tanks, and which country reported producing the most anti-tank missiles. UNCDA also needs to be given more latitude in releasing the submitted information on a more timely basis.

VII. It is premature to add new categories of weapons to the universal Register at this time, since no consensus can be formed around any particular system. Additional categories should be added in one of two ways. First, the establishment of regional variants of the Register may deal with the issue of no consensus, since one region and no other might view a particular weapon system as potentially destabilizing if accumulated in excessive quantities. A second approach is to have a special consultative mechanism (e.g., annual review panel) be assigned the task of considering such additions and making recommendations. Some mechanism must be developed to accomplish the task of adding additional categories if the Register is to be dynamic and keep up with technological advances.

VIII. Several key states are demanding that weapons of mass destruction be part of the Register. Little support for this proposal exists since these weapons are dealt with in other organizations, treaties and regimes. The two best approaches to dealing with this matter are the Argentinean approach and the German nuclear transparency initiative. They should be supported but not as part of the UN Register of Conventional Arms.

IX. Technology transfer plays a key role in the development of conventional weapons. Given past experience in attempting to control these technologies, especially those which are dual-use, and the current environment which promotes technology transfer for development, no attempt should be made to include technology transfer or indigenous development as part of the Register process.

X. Maximum effort should be made at the international level to promote the regionalization of the Register as a supplement to, not a substitute for, the global UN Register.

XI. Work should begin now on developing a consultative mechanism which can perform the required functions of a cooperative security regime, especially interpretation, dispute settlement and sanctions. Initially this effort should focus on an annual panel, eventually emerging into a GATT-like panel if the norms of the Register take hold.

Future Research

Much of the research to be conducted in the support of the Register is obvious from this report and its major policy proposals. However, the one area where some extensive academic research could produce some meaningful results is in the area of developing a consultative mechanism for the Register. Summarized below is a proposal previously submitted by the author to the United States Institute of Peace. Even if this research grant is funded, the subject matter is so complex that it would benefit greatly from a multi-disciplinary effort and is submitted in the hope that a joint U.S.-Canadian research effort could tackle the research.

Focused Comparison of Arms Build-Ups

The UN Register is ultimately intended to prevent 'excessive and destabilizing accumulations' of armaments. Yet accurately defining such, especially in advance of a conflict, is problematic. The first part of the research will seek to broach this issue by conducting a focused comparison of cases where build-ups did and did not lead to conflict, leading to policy relevant theory regarding the correlation between arms build-ups and the initiation of hostilities. Particular attention will be paid to the role of perceptions in the interplay between weapon accumulations and conflict. The goal is to develop a set of parameters which would enable the Register (or similar transparency instruments) to identify, track and provide timely warning of potential conflict. Such research will not only build upon the methods currently employed by national intelligence, noting the limitations on such methods at the regional or international level, but also draw upon the extensive earlier work of Dr. Laurance and others (e.g., Stephanie Neuman, Robert Harkavy, Keith Krause, and the CASCON project at MIT) in assessing relative capabilities while taking into account the perceptions and misperceptions of actors.

Specifically, the following questions will be asked for each of the cases:

- What was the pattern of accumulation of conventional armaments on both sides prior to the outbreak of conflict (or the absence of conflict in the cases where accumulations did not lead to conflict)?
- How were these build-ups perceived by the primary regional actors and/or their major supporters and supplier states?
- In those cases where build-ups were a major factor in the outbreak of conflict, what were the perceived characteristics of the weapons systems (qualitative and quantitative) which made them destabilizing (or stabilizing in the case of no conflict)?
- What was the nature of the consultative process among actors (organization, communications, etc.) in each of the cases examined?

Focused Comparison of International Institutions and Their Consultative Mechanisms

Utilizing the generalizations and policy relevant theory generated in the first part of the research, the project then addresses the potential range of consultative mechanisms which might employ the data generated by the UN Register or other transparency mechanisms. The first step is to evaluate the role that existing organizations play or can play in the utilization of the Register as a tool for preventive diplomacy. Organizations to be studied include the UN Centre for Disarmament Affairs (UNCDA), the UN organization charged with administering the Register. At present, this organization plays a minimal role and its expansion into a consultative mechanism will require significant expansion and development. This will not occur without a consensus of the major arms supplier states, especially the United States. This research is expected to produce major policy recommendations regarding the use of UNCDA as the focal point of consultative activity. In addition to the UNCDA the project will take advantage of the extensive experience and research conducted in the International Organizations and Nonproliferation project at the Monterey Institute of International Studies to evaluate the consultative processes of other international institutions which might provide lessons learned. These include the Organization for the Prohibition of Chemical Weapons (OPCW), the Missile Technology Control Regime (MTCR), and the International Atomic Energy Agency (IAEA). Particularly important will be the study of regional organizations. From the beginning of the Register exercise its founders and developers have recognized that while a universal and nondiscriminatory Register was essential as a first step, transparency in armaments must eventually be applied at the regional level. In this regard both the Organization of American States (OAS) and the Association of South East Asian Nations (ASEAN) have begun to consider adopting a regional version of the arms register. In addition to both of these organizations, the experience of the Conference on Security and Cooperation in Europe (CSCE) will be examined in detail, since it has transparency in armaments and dispute settlement procedures in place.

In addition to studying those organizations traditionally charged with addressing security issues, this project will investigate other international organizations and institutions which have conflict resolution and dispute settlement as part of their mandate. The primary target of this aspect of the research will be the GATT, focusing on its panel approach to resolving disputes. GATT is particularly appropriate since it relies on voluntary submission of transparent data and compliance with the recommendations of panels. This focused comparison of international institutions and their consultative mechanisms will result in the development of a variety of approaches capable of providing early warning of destabilizing and excessive build-ups and the defusing of potentially conflictual situations through preventive diplomacy.

Appendices

- A. Statements by Member States on the UN Register during the First Committee Session, Fall 1993**
- B. Articles, Books and Reports on the UN Register**



**EXCERPTS FROM STATEMENTS MADE BY MEMBER STATES AT THE
48TH SESSION OF THE FIRST COMMITTEE REGARDING THE REGISTER
OF CONVENTIONAL ARMS**

1. GENERAL VIEWS

Australia

Australia is pleased that many countries submitted returns to the Register and encourages all other countries to follow their support for the consensus resolution with participation in the Register. Australia looks forward to active involvement in the GA and the CD on the future development of global transparency mechanisms and arms acquisition guidelines. (A/C.1/48/SR.3)

Bangladesh

Bangladesh believes that there must be a focus on the question of interrelated aspects of excessive and destabilizing accumulation of arms, including military holdings and procurement through national production. There is a need to elaborate universal and nondiscriminatory means to enhance openness and transparency in this field. States ought not acquire conventional capabilities beyond their perceived and objective needs. There should be provisions for excess quota for weaker states, where feasible, to redress regional balance. Transparency, restraint, responsible policies and good neighborly behavior are essential elements in increasing regional and global stability, security and peace. (A/C.1/48/SR.6)

Belarus

Belarus agrees on the Register important role in promoting confidence building. (A/C.1/48/SR.8)

Cape Verde

Cape Verde welcomes the progress made by the GA regarding the Register, however, much still needs to be done to improve transparency in other categories of armaments.

China

Favors the adoption of appropriate and practical transparency measures in the field of armament and international arms transfers, and participates in the Register. In this connection, China also believes that no transparency in armaments should undermine or diminish the security of any country and that any measure to expand the scope of transparency must be formulated jointly by all states through consultations on equal footing. China maintains that the military forces of all states should be used solely for self-defence, and that no country should seek armaments exceeding its legitimate defence needs. For its part, China always treats conventional weapon transfers with prudence and responsibility, the quantity of its transfers being very small. China calls upon other countries to exercise the same self-restraint in the transfer of conventional weapons. (A/C.1/48/SR.8)

Colombia

The Register is a manifestation of international solidarity and cooperation. The Register fosters confidence-building and general and complete disarmament. (A/C.1/48/SR.8)

Congo

The Register constitutes an important initiative in the promotion of confidence and transparency in armaments. (A/C.1/48/SR.13)

Costa Rica

The Register constitutes a step forward towards general and complete disarmament and improves the access to objective information, transparency and moderation in armaments. (A/C.1/48/SR.9)

Cuba

Cuba believes that the Register reflects the first experience of member States regarding the transmission of data relating to the transfer of arms. Cuba was among the 80 countries which participated in the Register. This number is significant for the first year of operation. (A/C.1/48/SR.12)

Czech Republic

Notes that despite the division of the former Czechoslovakia, both the Czech Republic and Slovakia were able to report to the Register. The Czech Republic is dedicated to participating in the further improvement and development of the Register and calls on all countries which have not yet done so to submit their national reports without delay.

Democratic People's Republic of Korea

The realities after the establishment of the Register shows that this system still has many problems which must be solved in order to halt the arms race and to substantially contribute to the reduction of all weapons of mass destruction. The DPRK is concerned that, even after the establishment of the Register, exports of arms to developing countries have not decreased and technologies for sophisticated weaponry continue to be transferred. The Register further encourages the arms race rather than realizing its aim of confidence building.

Finland

The Register is a step towards preventing excessive and destabilizing accumulations of conventional weapons. Finland encourages countries which have not yet done so to report. The data provided thus far covers 95% of exports and 75% of imports, which is a "fairly good" outcome.

Gabon

Gabon believes the Register to be an important milestone in controlling conventional weapon exports. (A/C.1/48/SR.14)

India

The arms build-up exemplified by the huge military outlays of the large military spenders and exporters of armaments greatly affects developing countries and India has long advocated that steps be taken to curb these tendencies. India is impressed that everyone wants transparency in arms transfers but is concerned that transparency is becoming an end in itself. In their view, transparency would serve no purpose if it does not achieve the objective of reduction in massive arms transfers. India has long stood for curbing excess military expenditures which fuels the arms race. The aims should be general reduction of conventional arms across the globe to levels dictated by minimum needs of defence. An important dimension of transparency in armaments is the illicit arms trade which is most dangerous because of its destabilising and destructive effects through the fueling of phenomenon like

state-sponsored terrorism directed against other countries, subversion and drug trafficking. (A/C.1/48/SR.11)

Japan

The Register is an important element in the international effort to curb the unregulated and unprincipled transfer of weapons. Japan hopes that a substantially larger number of States will understand the significance of the Register and will participate.

While the basic objective of the Register is to increase transparency and to foster the growth of confidence, Japan is of the view that, in addition to this global approach, there is also a need to promote regional cooperation. This would include devising supplementary measures of transparency adjusted to the specific characteristics of each region.

Kazakhstan

The Register cannot be a practical substitute for arms reduction, but could increase confidence-building at regional and subregional levels. (A/C.1/48/SR.12)

Maldives

Maldives believes that the establishment of the Register is a productive first step towards controlling the spread of conventional arms. Maldives supports further development and strengthening of the Register. The success of the Register lies in the commitment of the member States to military transparency at a regional and international level.

Malta

Malta noted that the ongoing conflicts on the territories of the former Yugoslavia and the former Soviet Union illustrate the importance of efforts to promote greater transparency and accountability in the field of conventional arms transfers. (A/C.1/48/SR.14)

Mongolia

With the establishment of the Register and the adoption by the UNDC of "Substantial Guidelines and Recommendations for Objective Information on Military Matters" the cause of promoting transparency in military matters gained significant momentum. Mongolia notes with satisfaction that the first report of the Register contains information submitted by major suppliers and recipients alike.

Netherlands

The fact that 80 nations reported, including over 200 arms transfers, is a promising start. The public data now available through the Register creates transparency on conventional arms transfers and thus effectively contributes to confidence-building among the community of states. In order to provide the maximum level of transparency and confidence, the Netherlands asks for timely returns. Despite the impressive performance of the Register in its first year, the number of States reporting is insufficient - maximum participation is necessary in order to create confidence and trust among the member nations. The returns of member States to the Register so far are to be hailed as firm support for the concept embodied in the Register. The concrete data supplied are highly relevant as are nil returns. Nil returns have both political and factual bearing. Political, since the state concerned shows the political preparedness to voluntarily report to the Register. Factual, since the return itself officially reports that no arms transfer has taken place.

Nicaragua

Notes that two Central American countries have submitted their information to the Register. Nicaragua hopes the Register will contribute to general and complete disarmament and hopes that the Register will eventually become universal as it contributes to transparency in armaments. (A/C.1/48/SR.6)

Philippines

The Philippines welcomes measures which promote openness and transparency, such as the Register. Our world demands a heightened level of responsibility from all states, particularly those who presently manufacture and supply the bulk of the weapons.

Republic of Korea

The Republic of Korea believes that it is encouraging to see that eighty countries have registered their arms transfers, including the five permanent members of the United Nations Security Council. The Republic of Korea submitted their data in May 1993 as well as its legislative and administrative policies on arms transfers. Universal participation in the Register is the key to its success and Korea urges all member-States which have not yet done so to submit their data at an early date. At the same time, Korea looks forward to further discussions at the global and regional levels on the implementation and development of the registration system. (A/C.1/48/SR.11)

Romania

Romania submitted data on imports and exports of conventional arms to the Register. Transparency in armaments remains one of Romania's primary concerns.

Russian Federation

The Russian Federation supports the efforts of the United Nations to establish the Register and confirms their intentions to continue to provide, on a yearly basis, data to the Register.

Sierra Leone

It is necessary to discuss universal and nondiscriminatory means to enhance openness and transparency in the field of conventional armaments, particularly through the use of the Register. (A/C.1/48/SR.12)

Sweden

In order for the Register to become universal it is essential that all member-States, in the spirit of confidence-building, provide information to the UN on this matter. Sweden calls upon the States which have not yet done so to submit their national reports without delay.

Regarding the continuing operation of the Register, transparency measures need to be developed in such a manner so as to encourage the widest possible participation. If the scope of the Register is expanded too rapidly it could increase the difficulties involved with compiling data.

Switzerland

Switzerland considers the Register to be a major step forward in promoting transparency and furthering a multilateral approach to arms transfers. (A/C.1/48/SR.4)

Togo

Since transparency in armaments is the best way to build confidence among nations, Togo hopes interest in the Register will grow. (A/C.1/48/SR.13)

Ukraine

Transition to security at lower levels of armaments requires transparency in military matters which becomes an important additional factor in international stability. Ukraine supports openness in armaments and is in favor of disclosing information concerning military potentials of States. The United Nations member States should annually provide such information on a voluntary basis in accordance with the relevant resolutions. (A/C.1/48/SR.11)

2. VIEWS EXPRESSED REGARDING THE POSSIBLE EXPANSION OF THE SCOPE OF THE REGISTER

Argentina

Argentina, with other Latin American countries, is doing its utmost to ensure that transparency becomes a general principle in the region. Argentina is convinced of the value of confidence-building measures in arms control and disarmament. The Register should gradually be expanded to include all relevant types of weapons. (A/C.1/48/SR.13)

Austria

The Register has proved to be a success, with all major arms suppliers and recipient states reporting. The envisaged expansion of the scope of the Register and the consideration of problems related to the transfer of high technology with military application and of weapons of mass destruction will further increase transparency and subsequently confidence. (A/C.1/48/SR.6)

Belgium (on behalf of the European Community)

The states of the EC are pleased by the 80 nations reporting to the Register and appeal to nations which have not yet reported to do so. Even "nil" reports are significant as they signify participation and the information is a valuable addition to the data collected. The EC would like to see work done towards expanding the Register to include military holdings and national production. The EC considers that their participation would constitute an important contribution to the work of the Group of Experts due to meet in 1994. (A/C.1/48/SR.5)

Brazil

The first year of operation of the Register is to be greeted as the implementation of an important confidence building measure. Brazil not only submitted data concerning imports and exports, but provided background information on national stocks and procurement. Brazil hopes that more countries will participate in the same manner in order to make the Register an effective instrument for the promotion of transparency in armaments.

Bulgaria

Bulgaria is convinced that the Register, as a first step towards setting up a working mechanism for transparency, will prove to be an effective international instrument to prevent excessive stockpiling of offensive conventional weapons. Universal participation in the Register could help the United Nations monitor the acquisition of such weapons, including international arms transfers, military holdings and procurement through national production. The inclusion in the reports of information relating to national production is an important element of the future evolution of the Register.

Canada

Canada welcomes the Secretary-General's decision that the United Nations Register "become a priority task" for the Centre for Disarmament Affairs. Canada also cites the historic significance of the establishment of the Register and is gratified that 80 member-States have complied with the Register, but notes universal adherence must be ensured. The confidence-building goal of the Register will be achieved only with both universal adherence to the Register and its further expansion. Canada calls for the early expansion of the Register to include military holdings and procurement through national production.

Chile

As the large number of replies received indicates, the initiation of the Register is a promising step forward in the sphere of disarmament. Chile believes the continued improvement of the Register is essential, with the aim of making it a means of promoting confidence at the bilateral, regional and global levels. Chile not only reports its transfers, but submitted reports on its stocks and would like to participate in forthcoming meetings of governmental experts on the subject. (A/C.1/48/SR.3)

Democratic People's Republic of Korea

In order to make the Register more effective, a ban on all arms exports should be included. In addition, the registration and eventual phased withdrawal of arms and equipment in other countries should become an element of the Register.

Egypt

Egypt welcomes the establishment of the Register as a positive step in strengthening the efforts of arms control and disarmament, taking into consideration the necessity to provide the means for unilateral and collective self-defence with the minimum degree of armaments. Egypt continues to strongly believe that the exercise of transparency in armaments should not be limited to certain categories of conventional weapons but must include all types of arms, including weapons of mass destruction and high technology with military application without selectively discriminating among their various categories.

Fiji

Fiji supports the proposals to extend the scope of the Register to include the transfer of high technology with military applications and weapons of mass destruction. At the same time, nations must not lose sight of the main focus, aim and purpose of the Register, as excessive accumulation of arms is a major destabilizing factor to international peace and security. Submitting information to the Register demonstrates a readiness to exercise restraint in accumulating arms. Due to the fact that the Register is low key, incremental and long-term, it has the potential to be an effective instrument of preventive diplomacy.

Ghana

Ghana stresses that the continuing operation of the Register beyond the 49th Session of the GA will be determined by the efforts made by member states, through a GA Resolution, on the expansion of the scope of the Register.

Hungary

Although participation in the Register is voluntary, it could be worth examining the possibility of operating some kind of monitoring or review mechanism entailing a crude processing of the furnished data. In addition, it is imperative to have some kind of "yardstick" to apply to the data in order "to

prevent the excessive and destabilizing accumulation of arms". Once this is detected with the help of the Register, international action can be considered in order to avert any further deterioration of the security situation. Hungary attaches utmost importance to this notion of prevention as it should be one of the concrete novel objectives of transparency in armaments.

Iran

The establishment of the Register constitutes the first positive step towards curbing the reckless build-up of conventional weapons. To become effective and universal, the Register should expand to include all categories and types of arms, including the weapons of mass-destruction, their stockpiles, indigenous production and weapons undergoing research, development, testing and evaluation. Otherwise, if this expansion is not realized, this initiative will fail to achieve its projected goals. (A/C.1/48/SR.13)

Kenya

By increasing transparency and openness, the Register will contribute to curbing the conventional arms race and further reduce tension in volatile regions. Kenya views this as a first step towards a new era of arms control and therefore expects the Register to be linked with the United Nations work in preventive diplomacy and peacemaking. However, Kenya strongly feels that the operation of the Register cannot be effectively guaranteed without universal, honest and effective participation which would encompass all arms-related aspects and all categories of weaponry. The Register should include reliable background information on exports and imports from both the manufacturing and consuming countries. It should therefore aim at achieving transparency and confidence-building while taking into account the features peculiar to each region.

Lebanon

Lebanon reiterated its support for the Register. The data provided for the Register should also include information on national arms production. (A/C.1/48/SR.12)

Madagascar

Madagascar finds it encouraging that after the first year, all major suppliers and buyers have reported. The Register should be expanded to include: transfers of high military technology, and arms stockpiling and procurement through national production. Success of the Register shows that the problems of disarmament do not require formal treaties for their solution. (A/C.1/48/SR.14)

Malaysia

Transparency in armaments is an important new focus on confidence building measures to achieve international disarmament. Since international security and stability would be enhanced by increased openness and transparency, there is an urgent need for the United Nations to ensure the successful implementation of the Register. There is a need to expand the scope of the Register by adding several categories of equipment and data relating to military holdings and procurement. The Register could be further improved by including detailed information on R & D, arms storage conditions and military budgets. There is also a proposal for an elaboration of a code of conduct for arms transfers and to address the issue of mercenaries.

Netherlands

The 1994 Experts Group should devote its time to the further development of the Register. For example increasing the returns in a vertical sense, e.g. reporting on more categories. This would include the possibility of inclusion of weapons that are not currently registered (including more

detailed information); reporting holdings and arms procurement through national production; and making an annual declaration to the United Nations by member States on the size and organization of their military forces .

New Zealand

The widespread support of the Register is evident from the returns filed by 80 countries this year. New Zealand has followed the discussion in the Disarmament Commission on proposals for consolidation and eventual expansion of the Register and related transparency in armaments matters. New Zealand also looks forward to the report of the Group of Experts that will consider the further expansion of the Register. The long-term viability and success of the Register will be dependent upon its expansion to cover information on such matters as holdings and procurement of domestically produced weapons.

Pakistan

Pakistan believes that greater openness and transparency in armaments can undoubtedly serve as a curb on conventional arms races. That is why Pakistan welcomes the establishment of the Register. However, the exclusive focus on arms transfers in the absence of the requirement to disclose domestic holdings and production gives an incomplete picture of arms balances in a region and its sub-regions.

Poland

Poland attaches great importance to the issue of "Transparency in Armaments" and supports the relevant CD proposals. The idea of an international exchange of information on military holdings and arms procurement from national production should be addressed by the Group of Governmental Experts in 1994 who are to examine the possibility of expanding the scope of the Register. There are in place, or under negotiation, global instruments which prohibit such weapons or their transfers. Poland does not see any justification to belittle, undermine or interfere with such accords.

Slovenia

Slovenia believes that the Register represents an important achievement as a confidence and security building measure. The Register creates a solid basis for future work and possible deepening and extension of transparency, not only in the field of conventional weapons. Slovenia hopes that next year a majority of states will submit information.

Sri Lanka

Sri Lanka believes that the Register should be gradually expanded to include all categories and types of destabilizing arms, including weapons of mass destruction, stockpiles and indigenous production as well as holdings. (A/C.1/48/SR.11)

Tunisia

Tunisia believes that the Register contributes to transparency in the transfer of conventional arms and therefore contributes to international peace and security. The Register, however, suffers from some shortcomings which need to be addressed by the Group of Experts in 1994. The Register needs to include other categories of arms as well as the acquisition through national production. (A/C.1/48/SR.14)

Turkey

Turkey considers the Register to be an important instrument for building confidence and reducing unpredictability at the regional and global levels. Turkey is pleased that 80 countries reported and has

informed the Secretariat that they are interested in the work of the Group of Governmental Experts. Turkey holds the view that only by widening its scope to include procurement from national production, can the Register be transformed into an effective and non-discriminatory instrument of transparency and confidence-building.

United States of America

From the perspective of the United States, 80 responses to the Register is a good response, but not good enough. The Register can clearly be strengthened and the United States looks forward to the meeting of Governmental Experts who will be working towards bolstering the Register, including increasing the participation of member states and improving the quality of returns. The United States has already provided some of its ideas regarding enhancing transparency and openness. They proposed that the States exchange information on military holdings and procurement through national production.

The United States is disappointed that only some countries were willing to discuss important question that hit close to home, such as transparency in conventional arms transfers. The United States is also disappointed that some CD members attempted to expand the TIA focus to include weapons of mass destruction to try to redirect the discussion away from conventional arms issues which have a more direct bearing on their own security policies.

3. VIEWS REGARDING THE IMPORTANCE OF THE REGISTER AT THE REGIONAL LEVEL

Afghanistan

In view of the global interest shown for military transparency, Afghanistan has a particular interest in the security of its own region and therefore welcomes the UN Register. In this connection, Afghanistan calls upon all powers of the region to submit their returns to the Register. Afghanistan sees a serious need for effective international action to put restrictions on the sale and distribution of conventional weapons and to put an end to their illegal transaction.

Hungary

Although less than half of the total members of the United Nations (80) replied to the Register, it must be noted that the aggregate of the data provided on arms exports covers more than 90% of global arms exports, indicating some fairly good initial results of reporting, at least in one respect. In order to ensure the universally representative nature of the Register, the geographical imbalances in reporting should be remedied, and certain regionally relevant States should also provide their input. Further contributions to the Register would increase the confidence-building effect not only globally, but also regionally. It must be stressed that transparency in armaments should be a cooperative undertaking, although unilateral steps are also welcome.

Israel

After the Gulf War, it was evidently clear that the excessive accumulation of huge arsenals that go beyond the need of national defence is a major source of instability in the region. Israel, therefore, continues to believe that a special effort has to be made to curb arms supplies to the Middle East, especially in view of the ongoing process aimed at bringing peace and stability to the region. In that spirit, Israel supported the resolution on "Transparency in Armaments" and submitted the necessary

information to the Register. Israel hopes that the process of establishing greater transparency in arms transfers will contribute to confidence-building, stability and peace.

Jamaica

Jamaica hopes that the scope of the Register will be widened to include other categories of weaponry and levels of production and stockpiling. CARICOM countries have a particular interest in the effective functioning of an expanded Arms Register. Security threats in the region are heightened by the trade in both legal and illegal arms, however, despite of the Register's importance as a confidence-building measure, it does not inhibit the actual trade in arms.

Malaysia

Malaysia supports the call by the Secretary-General that regional countries should take the initiative on their own or in consultations with international organizations to work towards greater transparency in the transfer of armaments and disarmament so as to increase regional security and stability. In this regard, ASEAN has undertaken specific initiatives consistent with the traditions and practices within the sub-region.

Netherlands

Participation in the Register stimulates cooperation at the regional and sub-regional level, thereby contributing to stability in all regions of the world.

Thailand

Thailand considers that transparency in armaments can never be a substitute for genuine reduction in arms. The goals and intentions of the Register must be clear to all; states must be satisfied that their security will not be compromised by their participation. Since the degree of confidence among States varies from one region to another, Thailand believes regional consultations on transparency will be useful. (A/C.1/48/SR.11)

4. SUGGESTIONS ON WAYS TO IMPROVE THE REPORTING PROCEDURES

Netherlands

In order for the Register to be objective and non-discriminatory, its contents should be in full conformity with the seven categories and their definitions. In some cases definitions might need further adjustment, for instance those of combat aircraft and attack helicopters, the threshold in the definition of warships and the present definition of warships, and the present definition of missiles and missile launchers. Another more technical question is whether the standardized form for the reporting of arms transfers needs to be adapted. For instance, some member States anticipated the future development of the Register by using the standardized reporting form for submitting returns on their military holdings and procurement through national production. The 1994 Experts Group should explore whether ways and means can be found to help reduce the number of discrepancies between returns, for instance by the gradual amuning of national administrative procedures. To that end, the experts might develop greater commonality in views on the definition of what constitutes an arms transfer in terms of the Register: the transfer of title, the actual transfer of the hardware or the equipment passing customs.

**LISTING OF BOOKS, NEWSPAPERS, JOURNAL AND MAGAZINE
ARTICLES, AND WIRE REPORTS REFERRING TO
THE UN REGISTER OF CONVENTIONAL ARMS**

Anthony, Ian. "Assessing the UN Register of Conventional Arms." *Survival*, Vol. 35, No. 4 (Winter 1993), pp. 112-129.

"ASEAN Considers Inviting DPRK to Security Talks." *Pacific Rim Intelligence Report*, 28 May 1993.

"ASEAN Proposes New Venue for Asia-Pacific Dialogue." *Asian Political News*, 22 February 1993.

"At Least 70 States Have Submitted..." *Wall Street Journal*, 30 July 1993, p. 1.

"Attempts Made To Buy Russian Aircraft Carrier." *China Intelligence Report*, 8 February 1993.

"Bulgaria, Greece, Turkey Form Barrier Against Spread of Yugoslav War." *Associated Press* (London), 28 October 1993, 09:35 EDT.

Burton, Sandra. "What Kind of Defense? As the U.S. presence declines, Southeast Asia rethinks its posture." *Time International* (Hong Kong), 17 May 1993, p. 30.

British American Security Information Council. *Moving Toward Transparency: An Evaluation of the United Nations Register of Conventional Armaments* (Washington: British American Security Information Council, October 1993).

Chalmers, Malcolm and Owen Greene. *Background Information: An Analysis of Information Provided to the UN on Military Holdings and Procurement Through National Production in the First Year of the Register of Conventional Arms*. Bradford Arms Register Studies No. 3. (Bradford, UK: Bradford University department of Peace Studies, March 1994).

Chalmers, Malcolm and Owen Greene. *The United Nations Register of Conventional Arms: An Initial Examination of the First Report*. (Bradford, UK: Bradford University Department of Peace Studies, October 1993).

"Defense Industry Conversion, Diversification Noted." *West Europe Intelligence Report*, 1 October 1993.

"Development: OECD Official Says Aid Policies in State of Flux." *Inter Press Service*, 11 May 1993.

"Digest Briefs." *Associated Press* (Jerusalem), 29 July 1993, 04:56 EDT.

"Digest Briefs." *Associated Press* (Washington), 25 October 1993, 19:40 EDT.

"Disarmament: More Than 80 States Bare Their Arms at U.N." *Inter Press Service*, 27 October 1993.

"Disarmament: U.N. Head is Rethinking Plan to Relocate Office." *Inter Press Service*, 9 March 1993.

- "Disarmament: U.N. Hopes Nations Will Bare Military Secrets." *Inter Press Service*, 14 May 1993.
- "Draft Text of Summit Political Statement." *Associated Press* (Tokyo), 7 July 1993, 21:16 EDT.
- Epstein, William. "Write Down Your Arms." *Bulletin of the Atomic Scientists*, Vol. 48, No. 2 (March 1992), pp. 11-12+.
- "Factfile: UN Register of Conventional Arms." *Arms Control Today*, Vol. 23, No. 7 (September 1993), p. 33.
- Feinstein, Lee. "52 Countries Volunteer Reports to New UN Arms Register." *Arms Control Today*, Vol. 23, No. 5 (June 1993), p. 30.
- "Final Text of Summit Political Statement." *Associated Press* (Tokyo), 7 July 1993, 23:54 EDT.
- "First Committee: 'New Avenues in Disarmament.'" *UN Chronicle*, Vol. 29, No. 1 (March 1992), pp. 74-76.
- "First Global Account of Arms Transfers Successful." *Defense Marketing International*, Vol. 5, No. 16 (6 August 1993).
- "Full Text of G-7 Political Declaration." *Japan Policy & Politics*, 12 July 1993.
- "G-7 to Seek Tighter Control of Arms Technology Exports." *Japan Weekly Monitor*, 28 June 1993.
- Goldring, Natalie J. "Deadline for UN Arms Register Approaches." *Basic Reports*, No. 29 (16 April 1993), pp. 1-3.
- Goldring, Natalie J. "Register Progresses, Key Recipients Missing." *Basic Reports*, No. 32 (9 July 1993), p. 4.
- Goldring, Natalie J. "UN Arms Register Apparent Success: Plans for Expansion and Evaluation Begin." *Basic Reports*, No. 33 (17 September 1993), pp. 1, 3.
- Goodman, Anthony. "U.N. Lists Big Tank Imports by Greece and Turkey." *Reuters*, 20 October 1993, 20:30 EDT.
- Graham, Victoria. "U.S. Top Seller in U.N.'s First Arms Register." *Associated Press*, 20 October 1993, 21:35 EDT.
- Hanley, Charles J. "Arms Deals Unveiled." *Associated Press*, 29 July 1993, 00:15 EDT.
- Hanley, Charles J. "Arms Sales on World Market Recorded by U.N. in Register." *Washington Times*, 30 July 1993, p. A9.
- Hanley, Charles J. "Bottom Line: Arms Flow Tops \$50 Billion in 3 Years Since Invasion." *Associated Press*, 11 August 1993, 23:51 EDT.
- Hanley, Charles J. "Governments Check In With First Global Accounting of Arms Trade." *Associated Press*, 29 July 1993, 13:10 EDT.

- Hurd, Douglas. "Consent Within Nations, Cooperation Between Nations: A Universal Register of Arms Transfers." *Vital Speeches of the Day*, 15 October 1991, pp. 16-18.
- "India: World Parliament Group Meets, Arms Control on Agenda." *Inter Press Service*, 12 April 1993.
- "Israel to Detail Arms Deals." *Interavia Air Letter*, 3 August 1993, p. 5.
- "Japan and Russia to Cooperate to Restrict Weapons." *Japan Policy & Politics*, 18 October 1993.
- "Japan: Stepping Up Nuclear Arms Control Efforts." *Inter Press Service*, 12 February 1993.
- "Japan Taking Reserved Stance in Regional Security Debate." *Japan Policy & Politics*, 4 January 1993.
- "Japan to Host Confab on Arms Trade Transparency." *Japan Weekly Monitor*, 25 January 1993.
- "Key Points of G-7 Political Declaration." *Japan Policy & Politics*, 12 July 1993.
- Laurance, Edward J. "The UN Register of Conventional Arms: Rationales and Prospects for Compliance and Effectiveness." *Washington Quarterly*, Vol. 16, No. 2 (Spring 1993), pp. 163-72.
- Laurance, Edward J. and Herbert Wulf. "The Continued Quest for Transparency in Armaments: Quantity versus Utility of Information." in *Transparency in Armaments: The Mediterranean Region*. (New York: UN Office for Disarmament Affairs, 1993). Disarmament Topical Papers 15.
- Laurance, Edward J. and Herbert Wulf. *An Evaluation of the First Year of Reporting to the United Nations Register of Conventional Arms*. Research Report, Program for Nonproliferation Studies, Monterey Institute of International Studies, October 1993.
- Laurance, Edward J., Siemon T. Wezeman and Herbert Wulf. *Arms Watch* "SIPRI Report on the First Year of the UN Register of Conventional Arms." (Oxford: Oxford University Press, 1993).
- "Lawmakers Press Clinton for an Arms Sales Policy." *Defense Week*, Vol. 14, No. 30 (26 July 1993).
- Lederer, Edith M. "United Nations Register Reveals Undisclosed Arms Sales, But Secrets Remain." *Associated Press* (London), 25 October 1993, 14:05 EDT.
- Lewis, Paul. "UN Passes Voluntary Register to Curb Arms Sales." *New York Times*, 10 December 1991, p. 1.
- "Malaysia Calls for Int'l Confab on U.N. Peacekeeping." *Asian Political News*, 19 July 1993.
- "Malaysia Wants Regional Arms Register in Southeast Asia." *Asian Political News*, 14 June 1993.
- McKibbin, Warwick J. "A New Military Equilibrium? Preventing Regional Conflicts in the Developing World." *Brookings Review*, Vol. 11, No. 4 (Fall 1993), pp. 42-45.
- "Myanmar Navy Chief Visits Japan." *Asian Political News*, 1 November 1993.

- "Nations Report to UN Arms List." *Jane's Defence Weekly*, 22 May 1993, p. 5.
- "New Bills Would Place Limitations on Arms Sales." *Defense Marketing International*, Vol. 5, No. 23 (12 November 1993).
- "North-South: Britain's Secret Arms Sales Under Fire." *Inter Press Service*, 24 May 1993.
- Pallister, David. "UK Fails Terms of Arms Register." *Guardian*, 10 July 1993, p. 8.
- Passent, Daniel. "Auditing a Deadly Trade." *World Paper*, July 1993, p. 4.
- Perkovich, George. "In Arms Control, Has Japan Found Its Grand Purpose?" *Los Angeles Times*, 15 July 1991, p. 5.
- Pick, Hella. "Brisk Business at the Arms Bazaar." *Guardian*, 30 January 1993, pp. 1, 22.
- "Proposes Russia-ASEAN Committee." *Russia-CIS Intelligence Report*, 28 July 1993.
- "Rich Nations' Declaration: A Commitment to Democracy and Human Rights." *New York Times*, 9 July 1993.
- "Russia Loses the Arms Market." *Moscow News*, 16 July 1993, p. 5.
- Smith, R. Jeffrey. "U.S. Leads in Weapons Sales: U.N. Issues Its First Report on Arms Exports." *Washington Post*, 21 October 1993, p. A20.
- Sternman, Mark S. "UN Arms Registry: A Good Start." *Arms Control Today*, Vol. 23, No. 7 (September 1993), p. 30.
- "Tanks, Combat Planes Make U.S. Top Exporter." *Defense News*, 25 October 1993, p. 2.
- Taylor, Terrence. "Understanding the United Nations Conventional Arms Register." *The Fletcher Forum*, (Winter/Spring 1994), pp. 111-119.
- "Text of Japanese-Russian Document on Nuclear Weapons." *Japan Policy & Politics*, 18 October 1993.
- "Undisclosed Arms Sales Documented in UN Report." *Boston Globe*, 26 October 1993, p. 72.
- "UN Ambassador: Disarmament, Security Issues Concern Caricom." *Latin America Intelligence Report*, 4 November 1993.
- "UN Arms List." *Associated Press*, 20 October 1993, 21:07 EDT.
- "UN Arms Register." *Trust and Verify*, No. 35 (January/February 1993).
- "UN Arms Transfers Register." *Trust and Verify*, May 1993.
- "United Nations: Boutros-Ghali to Propose Some Offices Relocate." *Inter Press Service*, 3 March 1993.
- "UN Lists Germany and U.S. As Top Missile Exporters." *BMD Monitor*, Vol. 8, No. 22 (5 November 1993).

"UN Panel Calls for Naval Reforms." *Navy News & Undersea Technology*, Vol. 10, No. 16 (26 April 1993).

"U.N. Publishes Arms Register." *Arms Trade News*, November 1993, p. 3.

"U.N. Releases First Arms Register Results." *Defense Marketing International*, Vol. 5, No. 22 (29 October 1993).

"US Hit In Delhi Forum." *APS Diplomat Recorder*, Vol. 38, No. 16 (17 April 1993).

Usui, Naoaki. "Germany to Seek Increased Exports." *Defense News*, 8 November 1993, p. 4.

Wagenmakers, Hendrik. "The UN Register of Conventional Arms: A New Instrument for Cooperative Security." *Arms Control Today*, Vol. 23, No. 3 (April 1993), pp. 16-21.

"What U.S. Reported to U.N. Arms Register." *Associated Press*, 29 July 1993, 13:10 EDT.

"White House To Review Conventional Arms Policy." *Defense Week*, Vol. 14, No. 35 (7 September 1993).

"World-Wide: The UN General Assembly Endorsed." *Wall Street Journal*, 10 December 1991, p. 1.

"World Wire: Arms Registry Is Urged." *Wall Street Journal*, 28 May 1991, p. 18.

Wright, Robin. "Shifting Battle Lines in Arms Race." *Los Angeles Times*, 17 August 1993, pp. 1, 5.

Wulf, Herbert. "The United Nations Register of Conventional Arms," in *SIPRI Yearbook 1993: World Armaments and Disarmament* (Oxford: Oxford University Press, 1993), pp.533-44.

LIBRARY E A / BIBLIOTHÈQUE A E



3 5036 01007003 8

DATE DUE			
DATE DE RETOUR			