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SIPRI Yearbook 1999

Armaments, Disarmament and International Security

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'Although in 1998 there were fewer major armed conflicts than in 1989, world security has not made significant progress since the cold war ended. New concerns are generated by different factors both of an internal and of an international nature. On the one hand, some states, unable to provide basic governance and protection for their own populations, have brought about bloody domestic conflicts, and thus undermine security in different parts of the world; on the other hand, the proliferation of weapons of mass destruction and the spread of dangerous technologies pose a great potential threat to global stability and security. . . . All this calls for an integrated approach by the international community in its search for both a new security system and a new agenda for future arms control and disarmament.'

From the Introduction

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HIGHLIGHTS from the SIPRI Yearbook 1999

Security and conflicts

- Of the 27 major armed conflicts in 1998, only two—between India and Pakistan and between Eritrea and Ethiopia—were interstate. All the others were internal conflicts.
- The Serb oppression of the ethnic Albanians in Kosovo (Yugoslavia) and the failure of peace efforts brought in 1999 the first NATO out-of-area military intervention and increased tensions in the Balkan region.
- Continued conflict over Kashmir and the nuclear tests conducted by India and Pakistan heightened the risk of war and the nuclear risk in South Asia.
- The proliferation of conflict complexes in Africa highlights the need for peace processes to include a regional perspective, as in Central Africa, the most conflict-dense region in the world.
- In 50 years of UN peacekeeping, over 750 000 military and civilian police personnel from 118 countries have served in 49 operations. Despite continuing retrenchment, two new missions were established in 1998—in the Central African Republic and in Sierra Leone.
- The Good Friday Agreement created a framework for resolution of the conflict in Northern Ireland, in which over 3250 people have died since 1969. The Basque separatist movement ETA announced 'a total and indefinite' truce in its 30-year terrorist campaign for independence.
- The security situation in the Caspian Sea Basin has the potential to become another 'hot spot' in world politics because of the competition over vast oil and gas reserves, the involvement of other countries in Caspian regional affairs, and the local conflicts in areas around the oil and gas transportation routes.
- After eight years of the Middle East peace process, the new Israeli Government elected in May 1999 is confronted with a need to reopen the peace process with both the Palestinians and Syria to find solutions to the unresolved problems left by Netanyahu's government.
- The British–French Joint Declaration on European Defence issued in Saint-Malo in December 1998 presented 'fresh thinking' on the future of European common defence within the European Union and the new dimension of its relation with the United States. The debate about a non-hegemonic US posture in Europe has been revitalized.

Military spending and armaments

- World military expenditure in 1998 amounted to roughly \$700 billion, at constant (1995) prices and exchange rates, corresponding to \$745 billion in current prices. The long-term decline in world military expenditure since 1987 was interrupted by an increase in 1997 but again declined in 1998—by 3.5% in real terms. This reduction was due mainly to the sharp cut in Russian military expenditure (by 55% in 1998) and the reduction in US military expenditure (by 4% in 1998).
- Chinese military expenditure is roughly 75% higher than the official defence budget and amounted to 156 billion yuan in 1998, corresponding to 1.9% of GDP rather than the official figure of 1.1%.
- World arms production is highly concentrated to a few industrial countries. Rough estimates for 1996 show that the USA accounted for almost one-half and the 10 largest arms-producing countries for around 90% of the world total.

- The top 100 arms-producing companies in the OECD and developing countries (excluding China) had combined arms sales of \$156 billion in 1997 (three-quarters of estimated world arms production). The military production of the Russian defence industry continued to decline until 1998, when this trend changed into growth (by 5% in real terms) according to official statistics, but it is still less than one-tenth of what it was in 1991.
- From 1995 to 1998 the level of major conventional arms transfers was fairly stable and much lower than in the late 1980s. The SIPRI trend-indicator value for 1998—\$21.9 billion, at constant 1990 prices—was not much higher than that for 1994 (\$20 billion), the lowest value since 1970. The major suppliers for the period 1994–98 were the USA, Russia, France, the UK and Germany. Taiwan passed Saudi Arabia to become the number one recipient for this five-year period.

Non-proliferation, arms control and disarmament

- The nuclear non-proliferation regime was under siege by a series of challenges—the nuclear tests carried out by India and Pakistan and renewed suspicions about North Korean and Iraqi nuclear weapon programmes.
- The controversy over a US national ballistic missile defence system and the future of the 1972 Anti-Ballistic Missile Treaty jeopardized support for deeper cuts in strategic nuclear forces and threatened to reverse the progress made in recent years in reducing those forces.
- At the end of 1998, the Chemical Weapons Convention had 121 states parties and 48 signatories; 90 states parties submitted their initial declarations to the Organisation for the Prohibition of Chemical Weapons (OPCW) and 85 states parties notified the OPCW of their National Authority. A total of 384 inspections in 28 countries were carried out by OPCW inspectors.
- The work of UNSCOM experienced serious setbacks during 1998, culminating in the air strikes against Iraq by the UK and the USA. The obstruction of the work of the inspectors by Iraq and the resulting inability of UNSCOM to declare Iraq free from non-conventional weapons meant that sanctions against Iraq would continue, despite the opposition to such measures by China, France and Russia.
- Concern about the proliferation and possible use of biological weapons increased. Both national and international medical associations have warned that future scientific and technological advances could be misused.
- Despite the deadlock in the Vienna talks on conventional arms control in Europe in 1998, in early 1999 headway was made towards drafting an adapted Treaty on Conventional Armed Forces in Europe.
- Progress towards a total ban on landmines was made in 1998. Although none of its major opponents had signed the Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (the APM Convention), with the required 40 ratifications achieved in September the convention entered into force on 1 March 1999.

SIPRI Yearbook 1999

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Plus a glossary of terms and membership of multilateral organizations, tables, figures, maps, data appendices and extensive documentation as well as detailed accounts of some of the conflicts in 1998

SUMMARIES from the SIPRI YEARBOOK 1999

1. Major armed conflicts

Margareta Sollenberg, Peter Wallensteen and Andrés Jato

In 1998 there were 27 major armed conflicts in 26 locations throughout the world. Both the number of major armed conflicts and the number of conflict locations were higher than the previous year (in 1997 there were 25 major armed conflicts in 24 locations). However, both figures for 1998 are lower than those for 1989. The rise in the number of conflicts and locations in 1998 is accounted for by the conflicts on the continent of Africa.

All but two of the conflicts in 1998 were internal—that is, the issue concerned control over the government or territory of one state. The two interstate conflicts in 1998 were those between India and Pakistan and between Eritrea and Ethiopia.

In at least six of the conflicts the intensity of the fighting in 1998 increased to a higher level than in the previous year. Thirteen of the major armed conflicts in 1998 incurred at least 1000 deaths during the year—Afghanistan, Algeria, Angola, Burundi, Colombia, the Democratic Republic of Congo, Eritrea–Ethiopia, Guinea-Bissau, Rwanda, Sierra Leone, Sri Lanka, Sudan and Yugoslavia (Serbia and Montenegro).

A root cause of the conflicts in Africa is to be found in the weakness of many of its states, which became especially obvious after the cold war. Corruption, lack of efficient administration, poor infrastructure and weak national coherence make governance both difficult and costly. The combination of weak states and rich natural resources in Africa has resulted in a dangerous structural environment fuelling conflicts. Natural resources have become a cause for war as well as a necessary source of wealth for keeping the conflicts going. In several parts of sub-Saharan Africa semi-political actors are fighting for the control of natural resources without any wider political ambitions.

• *Appendix 1A, by the Uppsala Conflict Data Project, presents data on the major armed conflicts of 1998.*

• *Appendix 1B, by Sten Widmalm, on the Kashmir conflict.* The conflict in the Indian state of Jammu and Kashmir continues despite attempts over the past three years to revitalize democratic institutions. The 1990s has been a decade of violence for Kashmir during which the relationship between India and Pakistan has remained volatile. Although the levels of violence have varied greatly from year to year, fighting has been continuous

since 1989. In 1998 no political or diplomatic solutions to the conflict were in sight and both separatist-related violence and cross-border firing increased. Estimates of the number of lives claimed by the conflict in Jammu and Kashmir, including civilians, military personnel, border security forces and separatists, vary greatly. Some of the observations that might be described as comparatively neutral suggest around 25 000 casualties between 1989 and 1996.

The nuclear tests worsened the relationship between India and Pakistan and were followed by a drastic increase in firing across the Line of Control and an escalation of violence in Jammu and Kashmir. If the attempt to reinstall democratic institutions had some effects in decreasing tension in Jammu and Kashmir in 1996 and 1997, all such processes were reversed in 1998. The separatist movement, although internally divided, continues its war against the Indian Union.

• *Appendix 1C, by Stefan Troebst, on the Kosovo conflict.* During the entire first half of the 1990s, the Kosovar Albanians exercised non-violent resistance but were ignored by both Belgrade and the international community. In turning increasingly to violent resistance from 1996, the conflict acquired an international dimension, involving other countries and multilateral organizations. In 1998 the conflict escalated to full-fledged warfare between the Kosovo Liberation Army (KLA) and the Serbian Army and police forces. While both sides in the conflict included outside political factors in their calculations, the actual impact of the international community on the development of military events was modest. By the end of 1998 the long-term solutions to the Kosovo conflict favoured by the Serbian and the Kosovar Albanian sides were even more complex and difficult to reconcile than they were at the beginning of the year.

• *Appendix 1D, by Irina Zviagelskaya, on the Tajikistan conflict.* Tensions and armed conflict were still prevalent in Tajikistan in 1998, in spite of an ongoing reconciliation process between the Tajik Government and the United Tajik Opposition (UTO). Several factors obstructed reconciliation in 1998. Most notable were the mounting inter-regional and inter-ethnic controversies. A rebellion in the Leninabad region of northern Tajikistan in November and the ensuing reactions of the government and the UTO signified a new emerging balance of forces. For the first time the government and the opposition were united in their efforts to suppress a 'third force'. The bilateral accommoda-

tion between the government and the UTO may promote peace and stability in the short term but could well become destabilizing in the medium term if the two partners continue to exclude the Leninabad region from a share of the power.

2. Armed conflict prevention, management and resolution

Jaana Karhilo

There were several major successes in armed conflict prevention, management and resolution in 1998. A historic peace agreement was signed in Northern Ireland, and regionally monitored peace accords were achieved in the Ecuador–Peru border dispute and in Papua New Guinea. The attempts by the UN and regional organizations to support peace settlements or processes were particularly successful in the Central African Republic, Eastern Slavonia and Guatemala; precarious in Bosnia and Herzegovina, Georgia, Sierra Leone and Tajikistan; and ineffective in halting Angola's slide back into civil war. Armed conflict subsided with regionally monitored agreements in Guinea-Bissau and Kosovo, stalemated in an uneasy truce between Ethiopia and Eritrea, and escalated into regional war in the Democratic Republic of Congo. Fighting also continued or was resumed in a number of other countries.

The international community continued to direct attention to building capacity for improved conflict prevention, management and resolution at both the global and regional levels despite persistent financial constraints. However, the unity of political will and effort was challenged by dissension within the UN Security Council over appropriate enforcement of its decisions and the incipient tendency of regional organizations to undertake action without UN endorsement or oversight. The largest peace-enforcement/peacekeeping mission was the NATO-led Stabilization Force in Bosnia and Herzegovina, which at 33 000 troops was twice as large as all UN operations together. Most of the regional initiatives continued to stem from Europe and the Commonwealth of Independent States (CIS), with a substantial number also from African, Latin American and Asian organizations.

- *Appendix 2A, by Johan Sjöberg, presents data on the multilateral observer, peacekeeping, peacebuilding, and combined peacekeeping and peace-enforcement missions in 1998.*

- *Appendix 2B, by Ian Anthony, on the Northern Ireland Good Friday Agreement. Since 1969 over 3250 people have died in politically motivated attacks carried out in the context of the disagreement over the legal and political status of Northern Ireland. In April 1998 the Good Friday Agreement was signed and then overwhelmingly approved in*

simultaneous referendums in the Republic of Ireland and Northern Ireland. The agreement created a framework in which a political settlement to the conflict could be found, but it did not itself resolve the underlying issues at the centre of the dispute. The success of the overall peace process in Northern Ireland was uncertain at the end of 1998.

3. The Middle East

Peter Jones and Anders Jägerskog

Many issues that confronted the Middle East in 1998 remained open as 1999 began. These included: the position of a new Israeli Government on resumption of the peace process with both the Palestinians and the Syrians; the possible Palestinian declaration of statehood and the response of Israel and the rest of the world to such an announcement; the continuing bloodshed in Algeria; the stability of President Khatami's Government and his quest to liberalize Iran; and the situation in Iraq. Any of these issues would be a serious challenge to peace and stability in most regions. The Middle East must deal with them all at the same time.

Although each issue commands attention and concern, the Palestinian question appears to hold the greatest potential to usher in either a new era of reconciliation in the Middle East or a new period of confrontation. Each of the other problems, with the possible exception of the Algerian situation, will be made more complex and dangerous if the peace process fails, although the success of that process will not, in itself, guarantee solutions to the other problems. After eight years of peacemaking, 1999 is the critical year. Ultimately, the Middle East requires a new approach to security if it is to move beyond the confrontations and bloodshed which characterized 1998. The successful conclusion of the peace process is a sine qua non for the establishment of a new approach.

- *Appendix 3A contains the text of the 1998 Wye River Memorandum.*

4. Russia: military reform

Alexei G. Arbatov

The drive for military reform in the Russian Federation has been led by economic pressures and the need for savings on operations and for modernization of the armed forces rather than by changes in Russia's threat assessments, dramatic as these have been. For a short period after the spring of 1997, after the appointment of Defence Minister Sergeyev, some momentum built up for cuts and reorganization. Reform, paradoxically, involves costs, particularly those of demobilization and re-equipping the armed forces. With the continuing shrinkage of the Russian economy and after the

financial crisis of August 1998, it is unlikely that Russia will now meet its target for reduction in troop numbers to 1.2 million by 1999 or achieve the change to all-professional forces.

The Russian budget allocation for 'national defence' for 1999 was 93.7 billion roubles, 2.3% of GDP, or about 120 billion roubles (3.2% of GNP) if some other budget items such as military pensions and international activities are added. This represents a nominal increase over the 1998 budget but will not cover the costs of demobilization, promised salary increases, outstanding salary payments or the accumulated Ministry of Defence debt to the arms industry (19 billion roubles in early 1998). Procurement and R&D have been particularly hard hit. Implementation of Russia's commitments to eliminate nuclear and chemical weapons is threatened. Above all, it is generally agreed in Russia that the nuclear forces should have highest priority in the Russian defence posture to compensate for the absolute and relative weakening of the country's conventional capabilities, as an 'umbrella' for implementing military reform and as the only remaining heritage of the Soviet superpower status.

5. The Caspian Sea Basin: the security dimensions

Gennady Chufirin

The security situation in the Caspian Sea region has become important in world politics during the 1990s. It has been strongly influenced by increased competition among regional as well as several extra-regional countries over the vast oil and gas reserves claimed to be in the Caspian Sea Basin. Among the major obstacles to the use of the Caspian oil and gas resources is the dispute over the existing Caspian Sea legal regime and different approaches to its resolution favoured by the littoral states (Azerbaijan, Iran, Kazakhstan, Russia and Turkmenistan). Another is linked to the problem of transportation of oil and gas from the Caspian Basin to outside consumers. This conflict of interests among the littoral states has been exacerbated by the growing involvement of the USA and a number of European and Asian countries in the regional affairs. Finally, the security of oil and gas transportation routes passing across or located close to zones of local conflicts (in Abkhazia, Chechnya and Nagorno-Karabakh) has become increasingly linked to the resolution of these conflicts. The influence of radical and militant Islam in a number of Caspian littoral states and their neighbours threatens to further destabilize the security situation in the region. These developments have led to an increase in the militarization of the Caspian Sea Basin. Realizing the dangerous consequences for regional security the littoral countries

have tried to diffuse mounting interstate tensions in the region. However, there has been insufficient progress in this direction.

6. Europe: the institutionalized security process

Adam Daniel Rotfeld

The process of adapting the European security organizations to the post-cold war environment made further progress in 1998. The three Protocols of Accession to NATO, which had been signed with the Czech Republic, Hungary and Poland in December 1997, were ratified by the parliaments of the NATO members and the aspirant states in 1998 and early 1999. This laid the legal foundation for the enlargement of NATO in March 1999, prior to the Washington NATO summit meeting held in commemoration of the 50th anniversary of the signing of the North Atlantic Treaty. In March 1998 formal negotiations were opened with six candidates for membership of the European Union (EU). Qualitatively new tasks were entrusted to the Organization for Security and Co-operation in Europe (OSCE) as a result of developments in 1998 in the Kosovo conflict in the Federal Republic of Yugoslavia.

Decisions adopted during the year bore witness to the fact that the European multilateral security organizations are no longer based on a relationship between two adversarial alliances but on a common system of values among states. In 1998 the European security debate focused to a great extent on the future missions and mandates of the major security institutions—NATO, the EU, the Western European Union (WEU) and the OSCE—and their interrelationships as well as on the role of the major powers within these organizations.

The European security organizations will need to take creative and bold action if they are to implement the necessary reforms to be able to prepare for and address the security risks and challenges to Europe in the next century. The December 1998 British–French Joint Declaration on European Defence, the Saint-Malo initiative, presented some 'fresh thinking' on and mapped out the future direction of European common defence within the EU. In consolidating transatlantic relations and coordinating the activities of these organizations, the United States must become a member of genuine partnerships rather than a hegemonic actor in NATO and the OSCE and in its relations with the EU and individual European states.

• *Appendix 6A contains the texts of the OSCE Oslo Ministerial Declaration, the British–French Joint Declaration on European Defence, and Poland's Act of Ratification of the North Atlantic Treaty.*

7. Military expenditure

**Elisabeth Sköns, Agnès Courades
Allebeck, Evamaria Loose-Weintraub and
Petter Stålenheim**

Military expenditure is an indicator of the amount of economic resources devoted to military activities. In 1998 world military expenditure amounted to roughly \$745 billion, which corresponds to \$125 per capita on average for total world population. The economic burden of military activities is indicated by the share of gross national product (GNP) going into military expenditure. This share varies between countries and regions but taken as an average of world GNP it is 2.6%.

World military expenditure has been on a declining trend since 1987, which shows that this has been a period of disarmament but probably also to some extent of increasing efficiency in the use of resources for military purposes. The decline is an effect both of the end of the cold war and of the restrictive overall budgetary policies during part of this period. The reduction in world military expenditure since 1987 is more than one-third in real terms (after allowing for inflation). The sharpest cuts have been made in Russia but there have been strong reductions also in the United States, Latin America and Africa. The only region where there has been unabated rapid growth is Asia, where military expenditure has increased by 27% in real terms over the past decade.

During recent years the decline in military expenditure has slowed down. In 1997 there was a slight increase, and preliminary estimates for 1998 show a reduction of only 3.5%. This slow-down is likely to continue. The USA, which accounts for more than one-third of world military expenditure, presented a defence budget plan in 1998 which shows increased military expenditure during the next few years. The 1999 defence budget of the Russian Federation shows a planned nominal (including inflation) increase of 75% over actual 1998 expenditures, but it is far from clear whether this increase will be implemented. In previous years economic difficulties have led to actual expenditure being well below the adopted military budget. In Asia the previous strong growth in military expenditures has slowed down as a result of the 1997 financial crisis, but they have still not started to decline even in East Asia, which was most seriously affected by the crisis. While the volume of arms procurement has been scaled down significantly due to the reduced purchasing power of their currencies on the world arms market, the domestic burden of their military expenditure is not declining.

Most of the countries with a very high share of GNP devoted to military expenditure are located in

Africa, a continent with many very poor countries and several ongoing armed conflicts. In 1998 UN Secretary-General Kofi Annan pleaded for the African countries to reduce their military expenditure to 1.5% of GDP. Latin America is the continent with the least transparency in military expenditure. It is difficult to obtain reliable military expenditure figures for these countries and thus to make proper assessments of their development. It is clear that the processes of democratization and reduction of conflict have led to reduced military expenditure, but the exact nature and size of these reductions are not clear.

- *Appendices 7A and 7B contain tables of military expenditure by region, country and income group and for NATO countries by function.*
- *Appendix 7C explains the sources and methods for the military expenditure data.*
- *Appendix 7D, by Shaoguang Wang, is a study of the military spending of China in 1989–98. Chinese military expenditure is known to be higher than the official defence budget, but there is disagreement among China analysts as to how much higher it is. SIPRI has commissioned a study to identify and try to quantify the items of military expenditure outside the Chinese defence budget. These items include the People's Armed Police, military pensions, military research, development, testing and evaluation, subsidies to arms production, and arms imports, and, on the revenue side, earnings from PLA business activities and from arms exports, some of which are used for military purposes. The resulting estimate of Chinese military expenditure, which is an estimate at the high end, is roughly 75% higher than the official defence budget and amounts to 156 billion yuan for 1998. This corresponds to 1.9% of GDP rather than the official figure of 1.1%. This estimate is not expected to be the final answer on the size of Chinese military expenditure, but it is an important contribution to the exploration of real Chinese military expenditure.*

8. Military research and development

Eric Arnett

Events in 1998 pointed up more starkly than before the central issues of military technology in the post-cold war era. For the industrialized states on close terms with the USA, the issue is whether to compete with or complement US technological advantages. Further, these states must decide how much they are willing to invest to participate in using military force for missions other than homeland defence. For US partners in Europe, the issue is whether military intervention should be the basis of military planning, as France and the UK have apparently accepted. If not, the question arises

whether states like Germany, Italy, Spain and Sweden should invest in projects that are mainly suited to military intervention rather than redirecting or reducing their military technology bases.

For some other states, the problem is whether military action from the advanced industrialized states can be deterred. Ballistic missiles are popular with states that fear they may be on the receiving end of US military power precisely because they still cannot be defended against reliably. It remains to be seen whether the funds devoted to these projects, which can destroy political confidence as well as deter conflict, will produce systems that contribute meaningfully to their security or simply signal desperation in the face of US technological accomplishment.

9. Nuclear tests by India and Pakistan

Eric Arnett

While the 1998 nuclear tests may have focused international attention on the problems of war and nuclear risk in South Asia, they may have served more as a reminder or warning of related problems than a cause of instability in themselves. The greatest risk of nuclear war in South Asia arises from Pakistan's long-standing strategy of using the threat of early first use of nuclear weapons to deter conventional war, even as it tries to use this deterrent to preserve its freedom of action in Kashmir. As long as Indian military planners believe that their own nuclear capability will deter Pakistani first use and therefore leave them the option of launching a punitive conventional war, the risk of nuclear escalation is not only real but also stems directly from the perfectly logical designs of the states involved. It is not necessary to postulate an accident or an officer prepared to use nuclear weapons without proper authorization to envision nuclear war in South Asia. All that is required is for the Indian and Pakistani militaries to do what the public record strongly suggests they intend to do in a crisis.

No clear decision to expand their nuclear capabilities has yet been made by either government. There are encouraging signs that India will limit the size of its arsenal and may not change the nature of its deployment immediately. With a policy of not using nuclear weapons first, India seeks mainly to deter Pakistani first use of nuclear weapons and preserve an option to respond appropriately if relations with China deteriorate. The situation in Pakistan is less clear, but the indications are that the military continues to exaggerate the value of nuclear deterrence and may move more decisively towards deployments of a provocative sort.

10. Arms production

Elisabeth Sköns and Reinhilde Weidacher

The production of weapons is an activity which is strongly concentrated, both across countries and across companies. Rough estimates for 1996 show that the 10 largest arms-producing countries in the world accounted for almost 90% of world arms production (excluding China). The United States accounted for almost half of the world total, while the next two countries in size, France and the UK, accounted for 10% each and the next three—Germany, Japan and Russia—for roughly 4% each. Similarly, the largest companies produce an increasing share of world armaments. The arms sales of the top 100 arms-producing companies in the Organisation for Economic Co-operation and Development (OECD) and developing countries (excluding China), at \$156 billion in 1997, represented more than three-quarters of total world arms production.

The changes in the global arms industry that have taken place since 1996 are likely to have further increased concentration. Since the beginning of the 1990s, arms production has been characterized by downsizing (in the early years), increasing concentration (particularly in the USA during the period 1993-98) and internationalization (one phase in the early 1990s and renewed efforts in Europe in recent years). These developments result in increasing difficulties for national government to exercise control over arms production and necessitate further mechanisms and policies for monitoring and control, also on the international level.

• *Appendix 10A, by Elisabeth Sköns, Reinhilde Weidacher and the SIPRI Arms Industry Network, contains financial and employment data on the top 100 companies in the OECD and developing countries in 1997.*

11. Transfers of major conventional weapons

Björn Hagelin, Pieter D. Wezeman and Siemon T. Wezeman

Since 1995 the level of transfers of major conventional weapons has been fairly stable and much lower than in the late 1980s. The global SIPRI trend-indicator value of the transfers of major conventional weapons in 1998—\$21.9 billion, at constant 1990 prices—was little more than in 1994 (\$20 billion), the lowest level since 1970. The global reduction in 1998 was primarily the result of procurement decisions made several years ago, rather than an effect of the financial crisis which began in Asia in 1997.

There were only minor changes in the ranking of the top major suppliers for the aggregate period 1994–98 compared with the period 1993–97. The USA remained the largest supplier in 1994–98, followed by Russia. Among the other major suppliers France's arms transfers have increased steadily since 1994; France passed the UK to become the third largest supplier for the period 1994–98.

Against the background of tough global and regional competition, industrial and political ambitions to finance the development of new weapons and certain arms production capacities by way of arms exports lead to different national interpretations of export limitations and technology transfers to the possible detriment of arms control. This was illustrated in 1998 by the failed attempt by the US Administration to prevent the British Government from approving the sale of air-to-ground missiles to the United Arab Emirates.

Among different means of arms export control, embargoes are a strong political signal of disfavour. While many embargoes have been enforced on states engaged in internal wars, they do not seem to have had much influence on the level of violence or to have led to an end to the fighting. In practically all cases of embargo, including mandatory UN embargoes, reports have emerged of illegal arms transfers.

The adoption by EU member states of a Code of Conduct for Arms Exports in 1998 constitutes an important step in a difficult political process towards the creation of common export regulations. However, the code does not put restrictions on European arms exports. It remains to be seen if the first annual reports on arms exports and on the national implementation of the code will be a major step forward with regard to transparency. On the whole, there are still few governments which regularly make available detailed national information about their overall arms exports, although the level of detail has improved in recent years. In 1998 the UN Register of Conventional Arms included data (for 1997) on holdings of weapons and procurement from national production for the first time.

- *Appendices 11A and 11B provide data on the transfers of major conventional weapons in 1998.*
- *Appendix 11C explains the sources and methods for the data collection.*
- *Appendix 11D contains the text of the European Union Code of Conduct for Arms Exports.*
- *Appendix 11E, by Bernard Adam, on control of the international trade in light weapons.* The success of the campaign to ban anti-personnel landmines gave some encouragement to the non-governmental organizations, international bodies and some national governments that were seeking

improved control of light weapons, but progress was limited to some particular steps. Because of lack of support from member states, initial action by the UN on the 1997 report of the Group of Governmental Experts on Small Arms was limited to the initiation of a study on ammunition and preparations for an international conference. Regional initiatives included the adoption by the EU of a Code of Conduct on Arms Exports and a Joint Action to combat the spread of small arms; the Organization of American States (OAS) legally binding Inter-American Convention Against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Material (1997); and a Declaration of a Moratorium on Importation, Exportation and Manufacture of Light Weapons in West Africa by the 16 member states of the Economic Community of West African States (ECOWAS). Cooperation developed at a practical level in southern Africa.

The fight against arms trafficking depends on the support of national governments and will need strong political will. Support for controls on the 'supply' as well as the 'demand' side is patchy, particularly among the industrialized states, and lack of coordination between national governments is a particular problem in Europe. The next steps in pushing ahead restraints on light weapons transfers are likely to be the introduction of greater transparency (either by including light weapons in the UN Register of Conventional Weapons or by creating regional registers) and an international system of supplier identification and marking.

12. Nuclear arms control and non-proliferation

Shannon Kile

Events in 1998 led to renewed concern about the effectiveness of international efforts to prevent the spread of nuclear weapons. The nuclear tests carried out by India and Pakistan did not encourage other states to promptly follow suit; however, they highlighted weaknesses in the nuclear non-proliferation regime, in particular its lack of universal adherence and legitimacy. Together with renewed suspicions about secret North Korean and Iraqi nuclear weapon programmes, the tests contributed to a growing sense that the nuclear non-proliferation regime was under siege by an unprecedented series of challenges.

Overall, the year was a largely disappointing one for nuclear arms control efforts. The Comprehensive Nuclear Test-Ban Treaty (CTBT) continued to hang in limbo. The negotiations in the Conference on Disarmament on a global ban on the production of fissile material for nuclear explosives faced considerable obstacles. The START II Treaty remained

stalled in the Duma, thereby blocking progress towards deeper reductions in the still sizeable US and Russian nuclear arsenals within the framework of a follow-on START III accord. In addition, the controversy over a US national ballistic missile defence system and the future of the 1972 Anti-Ballistic Missile Treaty (ABM Treaty) jeopardized support for deeper cuts in strategic nuclear forces and threatened to reverse the progress made in recent years in reducing those forces.

• *Appendix 12A, by Robert S. Norris and William M. Arkin, contains tables of the nuclear forces of the USA, Russia, the UK, France and China.*

• *Appendix 12B, by Ragnhild Ferm, on nuclear explosions.* Series of nuclear tests were carried out by both India and Pakistan in May 1998. Since the signing of the CTBT, none of the recognized nuclear weapon states has conducted a nuclear explosion. The fact that not all the explosions announced by India and Pakistan were detected by the International Monitoring System (IMS)—now being set up to verify the CTBT after it has entered into force—raised questions about the CTBT verification capabilities, especially among those critical of the treaty. However, most scientists agree that the system in fact worked well and will work even better in the region if or when India and Pakistan decide to adhere to the CTBT and provide IMS seismic stations on their territories.

13. Chemical and biological weapon developments and arms control

Jean Pascal Zanders, Elisabeth M. French and Natalie Pauwels

The legitimacy of the 1993 Chemical Weapons Convention (CWC) continued to be strengthened during 1998 as additional states signed and ratified the convention. At the end of 1998, there were 121 states parties and 48 signatories. Moreover, 90 states parties submitted their initial declarations to the Organisation for the Prohibition of Chemical Weapons (OPCW) and 85 states parties notified the OPCW of their National Authority. A total of 384 inspections in 28 countries were also carried out by OPCW inspectors. Progress in adding a verification protocol to the 1972 Biological and Toxin Weapons Convention has been limited, but the success of implementation of the CWC should serve to increase faith in the goal of universal disarmament in the BW area as well.

The work of the UN Special Commission on Iraq (UNSCOM) experienced serious setbacks during 1998, culminating in the air strikes by the UK and the USA in December. The difficulties between UNSCOM inspectors and Iraqi officials in 1997

were carried over into 1998, characterized by blocked access to facilities requiring inspection, disputes over the national composition of inspection teams, and a general lack of cooperation by Iraqi officials with respect to the requirements of UNSCOM inspectors. The inability of UNSCOM to declare Iraq free from non-conventional weapons meant that sanctions against Iraq would continue, despite the opposition to such measures by China, France and Russia.

• *Appendix 13A, by Malcolm Dando, on developments in biotechnology and genetic engineering.* Concern about the proliferation and possible use of biological weapons (BW) increased in the 1990s, and attention was given to the history of BW development in offensive biological warfare programmes. The scientific and medical advances centred on the Human Genome Project could bring great benefits to humanity. However, developments in biotechnology will cause enormous social changes, and the norm must be reinforced which promotes the peaceful use of the new biotechnology capabilities but prevents their misuse in offensive BW programmes. Both national and international medical associations have warned that future scientific and technological advances could be misused.

The 1972 Biological and Toxin Weapons Convention (BTWC) does not restrain beneficial research designed to achieve the kinds of medical advances, but its parties undertake 'never in any circumstances to develop, produce, stockpile or otherwise acquire or retain . . . [m]icrobial or other biological agents, or toxins whatever their origin or method of production, of types and in quantities that have no justification for prophylactic, protective or other peaceful purposes'. The urgent necessity now is for the verification protocol to the BTWC, under negotiation in Geneva, to be completed. Current indications are that an effective and efficient protocol could be agreed before the Fifth Review Conference of the BTWC in 2001. This would considerably strengthen the prohibitions embodied in the BTWC.

14. Conventional arms control

Zdzislaw Lachowski

Talks on the adaptation of the 1990 Treaty on Conventional Armed Forces in Europe (the CFE Treaty) were deadlocked by controversy in 1998. Neither the adapted treaty nor the planned revisions of the Vienna Document 1994 of the Negotiations on Confidence- and Security-Building Measures in Europe were achieved. Only in early 1999 was headway made towards drafting an adapted CFE Treaty. A new deadline for both agreements was set for the Organization for Security and

Co-operation in Europe (OSCE) summit meeting in Istanbul in November 1999. The entry into force of the 1992 Open Skies Treaty remained stalemated.

On the regional level within Europe the successful implementation of the 1996 Agreement on Sub-Regional Arms Control (the Florence Agreement) was in contrast to the lack of progress in other fields. Efforts to get talks under way on a regional military balance for the Balkans have resulted in an agreement on the mandate for negotiations on regional stabilization, but because of the conflict in Kosovo no negotiations are in sight.

Outside Europe, developments showed a mixed record of arms control-related endeavours, with encouraging developments in South-East Asia and Latin America.

- *CSBMs in Europe are reviewed by Zdzisław Lachowski and Pia Kronstedt in Appendix 14A.* The OSCE continued the implementation of and work on confidence- and security-building measures (CSBMs) on the pan-European and regional levels in 1998. Adaptations suggested for the Vienna Document in 1998 aim at enhancing transparency, predictability and cooperation, and put emphasis on deeper security cooperation suited to regional differences. Successful compliance was reported with the 1996 Agreement on Confidence- and Security-Building Measures in Bosnia and Herzegovina, in contrast to the mixed record of implementation of the civilian provisions of the Dayton Agreement.

- *Appendix 14B, on implementation of the APM Convention, by Zdzisław Lachowski.* Progress towards a total ban on landmines was made in 1998. Although none of its major opponents had signed the 1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (the APM Convention), with the required 40 ratifications achieved in September the convention entered into force on 1 March 1999. The Landmine Monitor, a civil society-based global monitoring network, got off to a promising start with the aim of reporting on all activities related to the implementation of a total ban. The entry into force in December 1998 of the 1996 amended Protocol II and Protocol IV to the CCW Convention strengthened efforts to eliminate inhumane weapons.

- *Appendix 14C contains the North Atlantic Council statement on CFE.*

15. Non-cooperative responses to proliferation: multilateral dimensions

Ian Anthony and Elisabeth M. French

In 1998 continued actual or suspected cases of the proliferation of nuclear, biological and chemical weapons in the absence of a comprehensive arms control and disarmament agenda raised the question of whether to respond using the threat or actual use of force, sanctions or technology denial.

In 1998 the threat and actual use of force, along with sanctions, were used to address breaches of disarmament commitments by Iraq.

In the case of Iraq, the use of force in support of disarmament objectives by the UK and the USA in December 1998 underlined the failure of external powers to achieve implementation of UN Security Council resolutions short of the use of force. In practice, the use of force may have hastened the modification of the decisions of the UN Security Council rather than bringing about Iraqi compliance.

India and Pakistan violated the widely supported norm against nuclear testing that was established by the 1996 Comprehensive Nuclear Test-Ban Treaty (CTBT) by conducting nuclear tests in May 1998. Some states introduced sanctions in response to the tests, but the international community in general showed little enthusiasm for coercive measures or sanctions. Responses were mainly based on diplomacy—increased efforts to persuade India and Pakistan to join the CTBT—and narrowly focused export controls—a technical barrier to arms acquisition that raises the costs of nuclear weapon development for India and Pakistan.

- *Appendix 15A, by Ian Anthony and Jean Pascal Zanders, is a discussion of multilateral weapon and technology export controls. It contains a table of the membership of the control regimes.*

Annexe A, by Ragnhild Ferm, summarizes the major arms control and disarmament agreements and lists the states parties as of 1 January 1999.

Annexe B, by Ragnhild Ferm, is a chronology of the major arms control and security-related events of 1998.
