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Reminder
A press conference
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SIPRI Yearbook 1996

Armaments, Disarmament and International Security

"In the post-cold war period, new threats and risks have emerged, while some of the 'old' ones continue to exist. The risk of an outbreak of global nuclear war has diminished, but the danger of proliferation of weapons of mass destruction has increased. The serious threat at present is the loss of control of developments by the great powers, the multilateral security organizations and the states on whose territories conflicts have broken out. The international system, based on the principles of interaction of sovereign states, is eroding.

. . . The new security system will express the political philosophy of a pluralistic community rather than a specific model or set of abstract assumptions. The comprehensive nature of such a system should reflect three fundamental objectives of peace: security; social and economic welfare; and respect for human rights, justice and organization of society based on the rule of law."

From the Introduction

SIPRI Yearbook 1996 **Armaments, Disarmament and International Security**

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Highlights from the *SIPRI Yearbook 1996*

Armed conflicts and global and regional security

- There was no major armed conflict between states in 1995. All 30 major armed conflicts were within states.
- The UNPROFOR debacle in Bosnia and the cash crisis at the United Nations sent peace-keeping into decline. Emphasis at the UN switched to conflict prevention.
- The Dayton peace agreement stopped the fighting in Bosnia abruptly, but numerous pitfalls stand in the way of full implementation of Dayton and the achievement of genuine peace.
- Success and tragedy marked the Middle East peace process. Palestinians gained new rights and responsibilities but Prime Minister Rabin's assassination unsettled Israelis and the region.
- Tension between North and South Korea and between mainland China and Taiwan did not derail their promising economic, political and cultural dialogue.
- The war in Chechnya persisted as the most painful development in Russia. Incoherent peace efforts failed to stop the fighting or to settle Chechnya's future status *vis-à-vis* the Russian Federation.
- Europe's main security challenge is to revitalize NATO and offer Russia and its western neighbours a new cooperative security arrangement.

Military spending, R&D, arms production and arms trade

- Aggregate world military spending continued to decline in 1995. Many developing countries continued to spend at levels out of proportion to their legitimate security requirements.
- Military R&D spending has decreased by 50–55% since 1987. France, Italy, Sweden and the USA reduced their efforts by 25% or more. Only India, Japan and South Korea increased their spending significantly.
- The production of military equipment is still decreasing in most parts of the world.
- At \$22.8 billion (SIPRI trend-indicator value), the volume of the trade in major conventional weapons was unchanged in 1995. The USA remained the largest arms exporter but Russia increased its share of overall deliveries dramatically, from 4% in 1994 to 17% in 1995.

Non-proliferation, export controls, arms control and disarmament

- In a major success for nuclear non-proliferation, the Non-Proliferation Treaty was made permanent. A universal non-proliferation regime appeared to be attainable, but tensions increased over non-compliance and progress towards nuclear disarmament.
- The new Wassenaar Arrangement may become the first forum in which governments coordinate their approaches to the global distribution of conventional military power. Failure to agree specific operating procedures delayed its formal establishment.
- Progress in negotiations on a nuclear test ban made a CTB treaty likely to be concluded in 1996. Progress in nuclear disarmament was mixed: START I cuts in US–Russian nuclear weapons continued but Russian ratification of START II remained uncertain. Pressure grew in the USA to drastically revise or abolish the ABM Treaty.
- The use of the nerve agent sarin in the Tokyo underground system starkly illustrated the need for enhanced national law enforcement and defence measures to make it more difficult for terrorists to manufacture, procure or use chemical or biological weapons or agents.
- The CFE Treaty process for reducing conventional weapons in Europe was completed. Around 50 000 heavy weapons have been cut back by the 30 states parties.
- The 'Inhumane Weapons Convention' Review Conference adopted a Protocol that bans the use of non-detectable anti-personnel mines, but with a 'grace period' which may exceed a decade.

SIPRI Yearbook 1996

Armaments, Disarmament and International Security

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SUMMARIES from the SIPRI YEARBOOK 1996

1. Major armed conflicts

Margareta Sollenberg and Peter Wallensteen

In 1995, 30 major armed conflicts were waged in 25 locations around the world. The comparative figures were 32 and 28, respectively, in 1994, and 36 and 32 in 1989, the last year of the cold war.

As in 1994, all the major armed conflicts in 1995 were internal rather than between states. However, foreign forces were involved in some intra-state conflicts, in the sense that their regular troops were involved in the fighting—in Tajikistan (Russian/Commonwealth of Independent States [CIS] forces were used against the opposition), Liberia (the Economic Organization of West African States Monitoring Group peacekeeping forces were involved), and Bosnia and Herzegovina (troops from Croatia reinforced the Bosnian Army in battles with Bosnian Serb forces).

Only one conflict—that in Bosnia and Herzegovina—was ended during the year through a comprehensive peace treaty which included military and civilian provisions as well as ways of addressing the incompatibilities behind the conflict. A second conflict—that between the Croatian Government and the Croatian Serbs—ended with military victories and a peace agreement.

As in previous years, there were a number of cases of non-governmental actors fighting each other, often in addition to an ongoing conflict between a government and non-governmental parties—in Afghanistan, northern Iraq, India (Kashmir), Liberia, Myanmar, Somalia and Sudan.

There is a visible trend in the relative prominence of the key issues in major armed conflicts: more conflicts are now fought over territory than over government control.

• *Appendix 1A, by Margareta Sollenberg et al., gives data on the major armed conflicts of 1995.*

2. Armed conflict prevention, management and resolution

Trevor Findlay

International efforts to prevent, manage and resolve armed conflict had some striking successes in 1995 in several highly publicized cases, although lesser known conflicts continued to elude the peacemakers. The most spectacular achievements were the Dayton Agreement on Bosnia and Herzegovina and the separate agreement on Croatia which brought conflict there to a halt in November. In the Middle East, further agreements between Israel and the Palestinians signalled that

the peace process was still advancing.

Success was also registered in Haiti, where a peace enforcement operation by a US-led multinational coalition force transferred responsibility to a UN peacekeeping operation once the situation had been stabilized. Peace accords which appeared sustainable were finally concluded for Angola and Liberia after long and bitter civil wars, although their implementation remained unsteady. The cease-fire in Northern Ireland endured but peace talks remained elusive.

While the UN in its 50th anniversary year played a role in almost every conflict situation, the new emphasis was on conflict prevention or, in UN parlance, preventive diplomacy. Peacekeeping headed for a period of retraction and consolidation as five major operations of varying success, including the UN Protection Force (UNPROFOR), the largest in UN history, drew to a close in 1995. UN peacekeepers had been continually humiliated in Bosnia until rescued from their misery by NATO bombing and replaced by a non-UN force. Peace enforcement triumphed.

Diplomatically the UN was marginalized by the Dayton process—it was not even represented at the talks. This experience and the UN's growing financial crisis further dampened enthusiasm for major new UN peace missions. Paradoxically, the UN was at the same time becoming more efficient and effective at planning and managing peacekeeping operations.

Regional organizations moved frustratingly slowly to increase their own capacity for conflict prevention, management and resolution and still failed to live up to their promise.

The most effective actors in most peacemaking efforts were, as might be expected, those with the greatest political and military power, the USA and Russia in particular, ad hoc consortia of interested regional states assisted by developed state partners or the conflicting parties themselves.

• *A table of international observer, peacekeeping and electoral operations in 1995 is included as appendix 2A, by Olga Hardardóttir. Appendix 2B contains the text of UN Secretary-General Boutros Boutros-Ghali's Supplement to An Agenda for Peace of 3 January.*

• *Appendix 2C, by Jaana Karhilo.* Participation in international operations is becoming an increasingly important task for the armed forces of the Nordic countries, but variations in security perceptions and alignments have resulted in different policies. While Norway, Sweden and Finland share a residual security concern over political volatility in Russia, Denmark has been able to

reorient its defence forces towards international missions relatively more decisively. The gamut of possible peace operations is most extensive for Denmark and most restrictive for Finland, the decisive factor being the extent to which use of force by national contingents is considered permissible. Sweden, actively pursuing a new policy on peace operations, and Finland, having moved towards broadening its traditionally cautious approach, continue to debate the policy implications of continued non-alignment within the EU. In spite of differences in organization and policy, the tradition of cooperation fostered by the Nordic countries is still one of their great strengths. They have been able to assemble and deploy joint battalions quickly, as in the case of Macedonia, and to coordinate the joint operation of their units in UNPROFOR. Their joint participation in IFOR will provide the next indicator for future development of their international forces.

• *Appendix 2D, by Trevor Findlay.* In its first 50 years the UN saved millions of lives, clothed, fed and sheltered millions more, oversaw decolonization, kept the peace in war situations and helped resolve and prevent conflict in others. Its 50th anniversary was to be a year of celebration and contemplation of reform, but was characterized by growing financial crisis and realization of the urgent need for fundamental reform. No reform proposals reached fruition. September 1996 was established as the deadline for a consolidated set of reform proposals to be submitted to the General Assembly. The future UN will only be as efficient as its members allow it to be. There is no dearth of creative ideas but it remains to be seen whether member states will have the political will to begin the reform process.

3. The divided nations of China and Korea: discord and dialogue

Bates Gill

The confrontations between China and Taiwan and between North and South Korea will continue to pose the greatest threats to security in East Asia. However, during the first half of the 1990s there were hopeful developments, as new channels of bilateral dialogue and contact were established in the political, economic, humanitarian and cultural spheres.

Fundamental political differences present the most immediate problems for reconciliation. In both cases the parties have entirely different economic, social and political systems and neither side in these two stand-offs is prepared to accept the other's form of political, social and economic organization.

Domestic political difficulties in mainland China,

Taiwan, North Korea and South Korea exacerbate the problems and undermine the political processes which might lead to negotiated settlements. In mainland China the long-term stability of the 'collective leadership with Jiang Zemin at the core' remains in question. In any event, no leader in mainland China can afford to appear weak *vis-à-vis* Taiwan. A growing body of opinion on Taiwan, led by the Democratic Progressive Party, openly advocates independence from the mainland and presents complications for dialogue. The two Korean leaders must not appear to be 'selling out' to the other side. Uncertainties concerning leadership succession in North Korea, coupled with its apparent economic deterioration, further weaken prospects for political settlements.

On the other hand, economic ties, trade relations, and humanitarian and cultural exchanges offer the best channels for positive interaction. Such relations hold out immediate economic benefits and can serve the parties' political aims. For China, closer economic relations with Taiwan would knit the two sides together in a way that Beijing sees as favourable to its goal of reunification. For Taiwan, the development of China's standard of living and a more open and prosperous mainland is in Taiwan's interest whatever happens with reunification. South Korea sees political benefits in opening up the North to economic relations and trade. For the North, a properly managed economic opening will attract hard currency exchange and investment, strengthen the regime's influence and legitimacy, and possibly prevent an undesirable reunification scenario on the South's terms. Each side will find benefits in economic relations and will seek to use them to gain concessions in their ongoing adversarial relations.

The promises of economic ties have drawbacks, however. For South Korea, they must be managed in a way that does not bring about the rapid disintegration of the North and avoids contributing to its political and military resources. For the North, over-exposure to the South's economic dynamism would threaten the legitimacy and survival of its leadership, which explains the North's go-slow approach. For Taiwan, entrepreneurs are concerned that the mainland exercise proper protection over trade and investments. Fearing the development of over-dependency, the government on Taiwan has resisted most attempts to open direct trade links between the island and the mainland. Of the four parties, it would appear that only the mainland would benefit from a rapid opening of economic ties with its adversary.

4. The Middle East peace process

Peter Jones

In 1995 there was both success and tragedy in the Middle East peace process. Israeli Prime Minister Yitzhak Rabin was murdered by a Jewish extremist on 4 November. The Labour Party continued negotiations under his successor, Shimon Peres, but it lost a close election in May 1996. The Israeli–Palestinian Interim Agreement on the West Bank and Gaza Strip (the Oslo II Agreement) was signed between Israel and the Palestinian Authority on 28 September 1995, almost two years behind the schedule set in the Declaration of Principles on Interim Self-Government Arrangements of 13 September 1993 (known as the Oslo Agreement). On the other hand, the peace process has proved to be resilient. Much has been accomplished since the 1991 Madrid Conference that was unthinkable at that time.

The negotiation between Israel and Syria made little progress for most of 1995, but resumed after the Rabin assassination. As 1995 ended it was apparent that quick action would be required if an agreement was to be achieved before the Israeli and US elections in 1996. The implementation of the Israeli–Jordanian Peace Treaty of 26 October 1994 proceeded smoothly in 1995.

The progress made in the Palestinian negotiations was fundamental. The two sides seem to be on course, and the election of the Palestinian Council should provide President Arafat and his peace policy with even greater legitimacy. That progress was slower than expected may not prove to be detrimental in the long term.

Progress continued on the multilateral track of the process. However, some participants continued to refuse to take part in initiatives designed to normalize relations with Israel before the Israeli–Syrian talks are concluded and such issues as the future status of Jerusalem are decided.

The murder of Prime Minister Rabin had a profound impact. Although Prime Minister Peres has all the qualifications to succeed him and may well prove willing to move more quickly than Rabin, Rabin's standing as a champion of security has caused an Israeli public already sceptical on security issues to look even more closely at the process.

More broadly, the assassination of Rabin indicates that the political landscape of the Middle East remains subject to violent disruption at the hands of extremists. The continuing efforts in the region of groups which justify their acts on religious grounds are a reminder that a radical change in any nation's leadership and policies as a result of violence remains a possibility. Indeed, as the process moves closer to finding solutions, the activities of terrorists on all sides can be expected

to increase.

Moving beyond the Arab–Israeli peace process, and looking at the region as a whole, it seems unlikely that true regional security will be achieved in the absence of Iran and Iraq. Both states, although weakened by war and economic embargoes, retain the power to fundamentally upset the most careful calculations of regional stability, and they have demonstrated that they are prepared to use that power.

In 1996 the Israeli, Palestinian and US elections will have an impact on the peace process. The Iranian parliamentary election will also provide indications of future political developments in that country. Other events and trends to watch include: the beginning of the Israeli–Palestinian Final Status talks, developments on the Syrian track and the general economic development of the region. It is in this last area that the multilateral negotiations can make their greatest contribution to stability in the region by convincing people in the Middle East that an end to the cycle of bloodshed will improve their daily lives in measurable ways.

• *Appendix 4A reproduces the Israeli–Palestinian Taba Joint Statement and Israeli–Palestinian Interim Agreement on the West Bank and the Gaza Strip.*

5. The former Yugoslavia: the war and the peace process

Anthony Borden and Richard Caplan

The signing in Paris on 14 December 1995 of the Dayton Agreement ending the war in Bosnia and Herzegovina, and earlier of an agreement on Croatia, was the culmination of the largest military operation in NATO's history, great humanitarian tragedy and enormous population displacement. On some estimates, 250 000 had died and there were 2.7 million refugees and displaced persons in Bosnia—one-third of the pre-war population. It was military developments—Croatian military success in Serb-held areas of the country and extensive use of force by NATO—which ultimately brought the war towards an end, raising questions about what the 'peace process' had actually achieved and whether it had all along been properly conceived.

The deployment of 60 000 NATO ground troops, including a sizeable US contingent, meant that the country could look forward to a suspension of warring for 12 months, after which the multinational military Implementation Force (IFOR) is scheduled to withdraw. General war-weariness and the cantonment of heavy weapons should reinforce this.

Whether the cease-fire provides the basis for a

more lasting peace and whether the Dayton accord can initiate a process of reconciliation and reintegration, not only in Bosnia and Herzegovina but also in neighbouring Croatia, Serbia, especially *vis-à-vis* Kosovo, and Macedonia, are open questions. In any war-ravaged nation the obstacles to peace-building are considerable. In Bosnia and Herzegovina neither side has won a decisive victory and neither is satisfied with the status quo. Historically such conditions have been a prescription for renewed warring. Dayton entrenched rather than resolved the fundamental causes of the conflict, most importantly the territorial division of the country. By enshrining partition and by allowing for the establishment of two states within a state and the maintenance of two separate armies, it makes the task of reintegration more difficult. The requirements for consensus that govern the main political organs will allow intransigent parties to thwart the effective functioning of the national parliament. A similar crisis contributed to the collapse of the Yugoslav Federation and the build-up to war.

Effective partition will also make it difficult to resettle the refugees and displaced persons. Despite the formal right of return these people enjoy, in practice many will be deterred by the prospect of having to cross lines of separation into 'hostile' territory in order to go home. Nor can they be expected to wish to return to areas that have been ethnically cleansed and where personal security is 'guaranteed' by local police forces who may have carried out the cleansing in the first place.

Time, aid and the flow of commerce and information may work to erode the barrier of partition. Another key to a lasting peace will be the effectiveness of the International Tribunal in The Hague. Any significant return of refugees would seem unlikely unless individuals responsible for war crimes are brought to justice. It seems likely that the two most directly responsible for the war in Bosnia and Herzegovina, the presidents of Serbia and Croatia, Slobodan Milosevic and Franjo Tudjman, will escape prosecution because the international community needs their cooperation.

The peace agreement is only a partial solution. The right of return of refugees does not extend to the tens of thousands of Croatian Serbs who fled the Krajina region in the face of last year's offensives. Kosovo's Albanian population continue to suffer violations of human rights on a systematic basis. The relaxation of the UN arms embargo may have the effect of levelling the playing-field and thus inhibiting conflict, or it may embolden the strengthened Bosnian Muslim forces to restart the war. The treatment of the Serb minority in Croatia raised fresh concern over that country's demo-

cratic credentials, and Serbia's purportedly constructive role in Bosnia and Herzegovina was belied by its continued support for the Bosnian Serbs and by the failure to take any steps towards settling the problem in Kosovo, where, it is often argued, the wars of Yugoslav secession actually began.

• *Appendix 5A reproduces the General Framework Agreement for Peace in Bosnia and Herzegovina and selections from the Annexes.*

6. Conflicts in and around Russia

Vladimir Baranovsky

In 1995 Russia and most of the other post-Soviet states were able to avoid major domestic disturbance, although this was often achieved by consolidating the elements of authoritarianism, undermining the emergence of civil society and the rule of law, and downgrading the principles of human rights and democratic government. Even so, the political élites seemed increasingly to proceed from the assumption of the need to have their power legitimized by popular vote.

President Boris Yeltsin's administration continued to proclaim its commitment to reform and consolidation—although the reforms increasingly amount to the redistribution of property among and within powerful interest groups and the emerging market economy is highly centralized, bureaucratized, corrupt and criminalized. The government claimed some successes in financial stabilization and a lower rate of decline of industrial production, but was under constant pressure because of the danger of social unrest and the threat of the restoration of the 'old regime'. Against this background, elements of outward assertiveness can be seen both as a compensation for domestic failures and as a manifestation of the government's responsiveness to the success of its political opponents.

The war in Chechnya continued to be the most painful development. Large-scale hostilities and violence continued, homes and civilian property were destroyed, hostages were taken and a considerable refugee problem developed. Efforts at political settlement were incoherent and Moscow used all available means to preserve Russia's integrity—a signal which seems to be both inward- and outward-oriented.

The other conflicts on the territory of the former USSR continued in less confrontational forms than in the recent past, Tajikistan being the dramatic exception. Russia has become less erratic and more pragmatic in its policy, has stopped undermining the territorial integrity of its CIS partners and has denied support to separatist forces and pressured them to accept autonomous status

within federative-type arrangements. The CIS countries are expected to repay this through loyalty to Russia—in some cases up to the point of accepting its military presence on their territories.

While welcoming the symbolic involvement of the UN and the OSCE in peace-settlement efforts, Russia aims to consolidate its own role as the most efficient external pacifier and the major actor in the conflict areas. It has proceeded from the principle that the post-Soviet space is an area of vital national interest to it and has succeeded in getting de facto recognition of this by the international community.

Strengthening Russia's position in some strategically important areas of the 'near abroad' is a high priority. Special emphasis is given to consolidation within the CIS framework, both politically and militarily. Russia has signed over 200 military-related agreements with the CIS countries; 36 were concluded in 1995, including those creating a joint air defence system and promoting cooperation in protecting the external CIS borders.

Developments within the CIS in 1995 have contributed to enhance Russia's role, but there is no reason yet to regard the CIS as an emerging superstructure which could come to resemble the USSR or even re-establish it as the 'USSR minus the Baltics'. The CIS states are not being subordinated to Russia's leadership; acceptance of its prominent role co-exists with a cautious but persistent search for alternatives by almost all the actors in the area. Nor are there sufficient grounds to consider the CIS as a multilateral military alliance in the making.

Russia's increasing role in the post-Soviet space could contribute to international stability by marginalizing conflicts and reducing their scope. Russia seems to consider this as instrumental to other goals, such as consolidating its great-power status, counterbalancing NATO enlargement and changing the former Western-oriented policy line. This would not necessarily mean re-establishing a confrontational pattern in Russia's relations with other countries, but might allow it to take a more independent stance in the international arena with a more diversified political agenda.

7. Europe: towards new security arrangements

Adam Daniel Rotfeld

In 1995 the debate and decisions on a new security system in Europe focused on five issues: settlement of the conflict in Bosnia and Herzegovina; enlargement of NATO and the EU to the east; the transatlantic partnership, including the US presence in Europe and the European pillar of the Atlantic Alliance; developments in Russia (the war in Chechnya and the difficulties associated with

the radical transformation and the domestic reform policy); and the discussion initiated by the Organization for Security and Co-operation in Europe (OSCE) on a model for European security for the 21st century. US, European states and EU positions on these matters revealed both similarities and differences in approaches to and concepts of European security.

This chapter examines European security in the light of the experience in Bosnia and different standpoints on the eastward enlargement of NATO, the continued evolution of the EU and the Western European Union (WEU), and the activities of the OSCE in 1995.

None of the existing European structures or institutions has a monopoly in shaping a comprehensive and common security system for Europe. Their main challenge is how to support the change and assist the CEE states and Russia in their transition to pluralist democracy and market economy while avoiding domestic and international instability.

The debate so far leads to several conclusions.

1. The security system will emerge from the collaboration of various structures rather than from just one model. Cooperative approaches to security will be developed at the bilateral, subregional and regional levels. What the *indivisibility of the security* of states means in practice is still an open question. Their integration into Western structures is a security policy priority for the CEE states. For NATO and the EU it presents both the challenge of reconciling legitimate Russian and CEE security interests and a unique opportunity to influence internal processes in those states by promoting stability in the transitional period.

2. In keeping with the 1994 Code of Conduct between states, there is an urgent need to re-define some of the fundamental principles governing relations between the states in the region. This applies in particular to the principles of sovereignty in the context of non-intervention in the internal affairs of states, of self-determination and of the integrity of states.

3. There is a close relationship between domestic and external security. An integral part of the comprehensive security system and the main way to prevent conflict should be the shaping of civil societies, democratization of the domestic relations of a state, and respect for adopted principles, rules and norms.

4. In the process of shaping European security, abstract concepts, models and deliberations are far less important than the response to the real needs of preventing conflict and settling crisis.

5. Arms control and arms reductions in Europe should remain a priority in shaping a new security system.

The transition and transformation processes in

Europe are unfinished. The standing of both the great powers and the military security arrangements in Europe is changing. Plans to enlarge NATO and the EU have prompted more practical thinking in terms of establishing a 'pluralistic security community' while avoiding creating new strategic dividing-lines or military blocs. NATO, the EU and the OSCE have made progress in redefining and rearranging the security of their own members. The next stage will be implementation of an enlargement strategy with the Central European states accompanied by building a strategic partnership to integrate Russia into a European security community. This would revitalize the Atlantic community and offer Russia and its western neighbours a new cooperative security arrangement.

- *Appendix 7A contains documents on European security including the Decision on a Common and Comprehensive Security Model for Europe for the Twenty-First Century.*

8. Military expenditure

Paul George, Bengt-Göran Bergstrand, Susan Clark and Evamaria Loose-Weintraub

Aggregate world military spending continued to decline in 1995. However, heavy reductions in the Western industrialized countries and Russia distorted the overall picture. Military spending continues to increase in certain countries and regions, notably in the Middle East and South-East Asia. Malaysia, for example, showed a 6.5% increase in military spending over 1994. Military spending in India and Pakistan, which has grown quickly in recent years, appears to have stabilized in 1995. Many developing countries continue to maintain military expenditure at levels which are out of proportion to their legitimate security requirements. In some cases, internal conflict is driving military expenditure to ever higher levels, thereby limiting the opportunities for governments to address the socio-economic inequalities which are so often the root cause of violent instability. Security expenditure in Algeria has dramatically increased—by 144% in real terms over 1994—as a result of the Islamic insurgency.

The lack of reliable information on defence spending for many important countries and regions of the world continues to make it impossible to determine a meaningful figure for total world military spending. Even where official data are available, their reliability must often be seriously questioned. China, in particular, presents the analyst with significant problems in determining the accuracy and reliability of its reported data on military spending. A promising development is that Russia, for the first time, submitted data on its

military spending to the UN in 1995 for the years 1992–94. Nevertheless, uncertainty about information on inflation and other economic developments makes it particularly difficult in the case of Russia to assess the country's military spending burden accurately.

In addition to its traditional coverage of military spending in NATO and Russia, the chapter devotes a section to security needs and policies in Central Asia with particular attention to Kazakhstan. Case studies of South Africa and Central America continue SIPRI's coverage of military expenditure issues in developing regions.

- *Appendix 8A contains tables of world military expenditure and appendix 8B explains the sources and methods of the data collection.*

9. Military research and development

Eric Arnett

World military research and development (R&D) expenditure in the mid-1990s appears not to exceed \$60 billion per year, which represents a reduction of 50–55% in real terms from SIPRI's last estimate, in 1987. Of the major investors, only India, Japan, and South Korea continue to increase their military R&D spending significantly, while the others reduce or hold steady. Spending in the countries of the former Warsaw Treaty Organization (WTO) has fallen dramatically since 1987 and accounts for most of the difference in estimates. Among the major Western countries, France, Italy, Sweden and the USA have all reduced their military R&D spending by 25% or more from their cold war peaks of spending.

Despite the often-heard observation that the capacity to innovate and independently produce advanced military technology is proliferating beyond the bounds of control, it remains difficult for any but a few producers to develop military systems embodying advanced technology. Even among the industrialized countries, the imperative for cooperation is growing. Nevertheless, the challenge of coordinating major projects internationally is getting the better of some efforts and fewer products of R&D are entering production. Smaller projects which are more responsive to the participants' national requirements are becoming more popular than grand enterprises.

Major European collaborations have proved to be more complex than expected, and many have failed—as illustrated by Spain's initiative to build up its military technology base in the past seven years. Spain has become disenchanted with the model of European defence cooperation embodied in multinational consortia and now favours smaller, more practicable bilateral projects that are more responsive to its requirements and

capabilities. Sweden has realized a number of advantages by limiting itself to projects consistent with its novel defence concept and thereby developing sought-after niche technologies. Ironically, Sweden is in a stronger position for cooperation with the NATO states than Spain, now that it is more open to collaborative projects; Spain took to NATO projects with more gusto in the late 1980s. Both countries remain dependent on the USA for military technology, as do most of the states with which the USA has a friendly relationship. With its nearest competitor spending less than one-eighth as much on military R&D, the US military technology base continues to maintain and offer important advantages.

India demonstrates the difficulties of developing advanced military technology indigenously. Despite the fact that most countries are beginning to resign themselves to a reduced R&D capability, the belief that military R&D will soon release a new wave of proliferation persists. In the words of one journalist: 'Military research and development [no longer] remains the prerogative of a handful of industrialized, wealthy nations'. The discussion in this chapter suggests that such is not the case.

10. Arms production

Elisabeth Sköns and Bates Gill

Restructuring of the arms industry continues worldwide as it adjusts to a lower level of demand for its products. The process of reducing production capacity for military equipment is reasonably smooth except in China, Russia and Ukraine, which are facing great difficulties in transforming their military industries.

Viewing the global arms industry through the sample of the 'top 100' arms-producing companies in the Organisation for Economic Co-operation and Development (OECD) and developing countries, the decline in arms sales has decelerated. Their combined arms sales declined by 2% in 1994, as compared with 6% in 1993. Since it is generally agreed that the combined excess capacity in these countries is far from having been eliminated, production and sales are expected to continue to fall, although possibly at a lower rate. Concentration, both national and international, facilitates reductions in capacity but also leads to less competition.

In the USA restructuring takes the form primarily of concentration into a few dominant players in each field and is associated with substantial cuts in production capacity. In Western Europe companies focus on costs, fearing competition from large US corporations. Because there are barriers to mergers into international company structures, military industrial concentration in Europe tends to take the form of international joint ventures,

focused on specific weapon projects or categories of weapon.

In few other major arms-producing countries has military production dropped as sharply during the 1990s as in Russia. By 1995 military production had declined to one-sixth its level in 1991. Only Ukraine has experienced a sharper drop: to one-tenth its 1991 level. The decline in Russian military production has been chaotic and to a great extent beyond government control. Some diversification into civilian production has taken place, but much less than was expected. During 1995 the government continued its efforts to come to grips with the situation through a more focused defence industrial policy, the three main goals of which are: to define the top-priority technology areas for the arms industry; to maintain programmes for dual-use technologies; and to guarantee continued technological progress in areas critical to national security.

China is also facing the difficulties of down-sizing. With domestic procurement in considerable decline and few export options, China's military industries must contract but are ill-prepared to meet commercial challenges. Taking advantage of contraction at the international level, China may be able to use its impressive economic growth to secure access to foreign military technology, especially from Russia and Israel.

Of the four industrializing countries examined, India's arms industry is marked by productivity and excess capacity and has few links to civilian production. It accounts for a small share of GNP but is still absorbing a disproportionate share of national science and technology resources. There is a significant dependence on foreign technologies through licensed assembly and production.

Israel and South Africa are no longer regarded as politically sensitive partners and are trying to exploit the emerging niche on the international market for refurbishing military equipment. Israel has a technologically advanced arms industry, which has been built up in close cooperation with the USA. The size of the arms industry is being reduced as a matter of conscious policy, but there is little interest in diversification and the companies are strongly oriented to increasing their share on the international market.

The excess capacity of South Africa's arms industry is partly an effect of reduced military budgets but also of its goal of self-sufficiency in armaments during the embargo period. A broad range of armaments are developed and produced, but the level of technology is lower than that of many of its competitors. The choice for South Africa is between diversification into civilian products and military exports.

South Korea has launched an effort to expand its indigenous arms production capability on the

basis of its achievements in civilian industry. Four companies in South Korea would be included in the list of the top 100 companies in 1994 if data were available. Like Japan in many ways, South Korea has given priority to civilian production and only recently decided to raise the technological level of its defence industrial base.

• *Appendix 10A contains data on the 100 largest companies in the OECD and developing countries in 1994.*

11. The trade in major conventional weapons

Ian Anthony, Pieter D. Wezeman and Siemon T. Wezeman

The SIPRI global trend-indicator value of international transfers of major conventional weapons in 1995 was \$22 797 million in constant (1990) US dollars. The revised estimate for the trend-indicator value for 1994 is \$22 842 million—roughly \$1 billion more than the estimate provided in the *SIPRI Yearbook 1995*. (It is usual for the figures for the most recent years to be revised as new and better data become available.)

In the period 1991–95 the precipitous decline in the volume of arms transfers recorded for the period 1987–90 appears to have been arrested and there is some evidence of a slight upward trend in deliveries.

The data available now permit a first tentative evaluation of broad patterns in the post-cold war arms trade, and the chapter examines in greater detail the patterns of arms transfers for selected suppliers and recipients across the 10-year period 1986–95. At the broadest level, these data tend to reinforce some accepted propositions about the trade in major conventional weapons. First, it is concentrated among a small number of suppliers and a relatively small number of recipients. The identity of the suppliers conforms closely to the group of major powers as identified by other indicators such as size of GDP and representation on the UN Security Council. Second, the pattern of arms transfers is heavily dominated by the nature of security arrangements between supplier and recipient. Third, bilateral relationships seem to be durable in the sense that equipment dependencies remain for a considerable period after a change in political alignment.

The data suggest there is much continuity in these very broad patterns of supply, but some elements of discontinuity also appear on closer examination.

The countries previously supplied by the Soviet Union and its allies have found it difficult to find alternative sources of major conventional weapons. By contrast, there is evidence that within the

group of states that traditionally relied on the Western allies for major conventional weapons, the USA has consolidated its dominance at the expense of West European suppliers.

There is also some support for the suggestion that the importance of motivations other than security assistance is growing. The capacity to pay in hard currency is probably given more weight by suppliers in their decision making compared with such factors as political alignment, access to bases and other facilities considered to have strategic importance and that were weighted more heavily during the cold war. Countries such as Kuwait, Taiwan and the countries of South-East Asia have the capacity to pay in hard currency for major systems.

• *Appendices 11A and 11B, by Ian Anthony, Gerd Hagemeyer-Gaverus, Pieter D. Wezeman and Siemon T. Wezeman, provide data on the arms trade in major conventional weapons in 1995. Appendix 11C explains the sources and methods for the data collection.*

12. Multilateral military-related export control measures

Ian Anthony and Thomas Stock

Multilateral regimes are in place to govern the supply of conventional arms and dual-use goods and technologies, nuclear materials and technology, chemical and biological weapons, and missile technology. In 1995 changes occurred in the membership of the military-related export control regimes: Romania became the 29th member of the Australia Group (chemical and biological weapons); and Brazil, Russia and South Africa became members of the Missile Technology Control Regime (MTCR), bringing its membership to 28. New Zealand and South Africa became members of the Nuclear Suppliers Group (NSG), increasing its membership to 31. Even so, at the end of 1995 membership of the regimes was still confined to 34 countries.

The Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies was established, subject to approval of the member governments, in December 1995 at a meeting of high-level officials of 28 states. This regime is expected to be established formally in 1996. In the EU, the regulation developed to address exports of dual-use technologies entered into force on 1 July 1995. With these two events, the emphasis of multilateral export regulation has been expanded to include new categories of goods and technologies.

The process of harmonizing membership across the regimes is an interesting aspect. In the area of transfers of nuclear materials and technology, during the cold war period the Soviet Union and

other members of the Warsaw Treaty Organization (WTO) were involved in development of the NSG. The other regimes, however, were founded around a core group of states which were associated with the system of alliances and security arrangements led by the United States. Since the end of the cold war, the membership of regimes has gradually been harmonized until, by the end of 1995, most of the former members of the WTO and the European states that were neutral or non-aligned during the cold war had become members of one or more of the multilateral regimes.

Moreover, in recent years members of the regimes have increasingly emphasized those activities that set the terms and conditions on which technology transfer can occur rather than the denial aspects of export controls.

As a result of changes in technology and markets, the regulation of international technology transfer is increasingly seen by governments as a collaborative exercise. Regimes provide them with a forum for discussion, exchange of information, lobbying and bargaining in support of national policy objectives.

Government objectives can be of a political nature (the US preference), economic or narrowly focused on non-proliferation concerns. There is no consensus within any of the regimes that they should attempt to coerce states whose political behaviour is considered unacceptable by regime members. However, the USA does use its export regulations in this way and is a central actor in each of the multilateral regimes. On 15 March 1995 President Bill Clinton expanded US sanctions against Iran to include a ban on all trade and investment, including the purchase of Iranian oil by US companies. The action was explained by Secretary of State Warren Christopher as part of a wider policy 'to use our diplomatic and economic measures and our military deterrent to contain Iran and to pressure it to cease its unacceptable actions'. These 'unacceptable actions' included proliferation concerns but also included actions not related to proliferation. Specifically, the charges are that Iran is 'the foremost sponsor of international terrorism' and that it 'seeks to undermine the Middle East peace process'. While other governments object to aspects of Iran's behaviour—particularly its opposition to the Middle East peace process—there is a dispute about how to attempt to change it. Some members of the regimes favour a policy of 'critical dialogue' with Iran.

It is with chemical and biological weapons that international responsibility to prevent proliferation is greatest because of the universal prohibition of the use, development, production and transfer of these weapons through the 1972 Biological Weapons Convention (BWC) and the 1993 Chem-

ical Weapons Convention (CWC).

The particular status given to nuclear weapon states in the 1968 Non-Proliferation Treaty (NPT)—which has no equivalent in the CWC or BWC—has made it more difficult to secure comprehensive membership of the NPT. There is no multilateral convention or treaty that addresses the issue of ballistic missile possession or use.

In 1995 some governments continued to argue that the activities of the Australia Group are not consistent with Article XI of the Chemical Weapons Convention (CWC), which relates to economic and technological development and commits the states parties to facilitate the fullest possible exchange of chemical materials and related information for purposes not prohibited by the convention. (Several governments argue that, since export controls are a barrier to trade, they cannot be consistent with this commitment. However, since export controls are given expression through national legislation (whose legitimacy is not questioned), the abolition of the regimes could make trade regulation less rather than more efficient, with even greater barriers to technology transfer.) Moreover, if there were no regulations that sought to prevent unwanted forms of proliferation, some states—notably the USA—might argue for other measures (perhaps including the use of force) to prevent the spread of nuclear, chemical and biological weapons. The debate on CWC Article XI reflects the misunderstanding or, alternatively, the lack of trust between 'North' and 'South'.

Regimes also address technologies which are neither inherently military in character nor directly associated with a weapon system but which could have military applications. Secure and effective communications are a crucial factor in successful military operations. For this reason digital communications systems dedicated to military application usually require export licences. It is often said that there has been a convergence between military and civil telecommunications technology or that civilian technology is superior to (rather than just different from) military technology in this area. The question therefore arises whether a country that would be denied a licence for a military communications system can achieve the same capabilities by purchasing unlicensed civilian technologies.

• *Appendix 12A, by Ian Anthony, discusses the possible impact of multilateral export controls on transfers of one specific dual-use technology—digital telecommunications.*

13. The nuclear non-proliferation regime after the NPT Review and Extension Conference

John Simpson

The 1968 Non-Proliferation Treaty (NPT) was given indefinite duration at the NPT Review and Extension Conference in April 1995, and a universal nuclear non-proliferation regime appeared to be attainable. However, tensions within the regime over non-compliance questions and between treaty parties over progress towards nuclear disarmament became more visible and acute. While the legal foundations of the regime were made permanent, its objectives and the steps that could be taken to reinforce it are likely to cause debate over whether the main task of the regime is to prevent nuclear proliferation by the non-nuclear weapon states within it or to facilitate the disarmament of the five declared nuclear weapon states (China, France, Russia, the UK and the USA) and the removal of the ambiguity that surrounds the nuclear weapon status of India, Israel and Pakistan.

This debate dates from the mid-1960s, when the NPT was being negotiated, but is acquiring enhanced prominence, in part because of the steady increase in the number of parties—from the first NPT Review Conference in 1975 until the end of 1995. In addition, Brazil, a non-NPT party, has accepted commitments equivalent to NPT membership by bringing the regional 1967 Treaty of Tlatelolco fully into force in its territories.

Three non-NPT states with unsafeguarded nuclear facilities—India, Israel and Pakistan—are not parties to the NPT or a regional nuclear non-proliferation treaty. Near-universal adherence to the NPT has placed them in a more politically visible position than before, enhancing pressure on them to move away from their ambiguous nuclear stance, as Argentina, Brazil and South Africa have done, and isolating them politically. India displays symptoms which could be interpreted as a willingness to undermine the regime by its principled rejection of the NPT.

Demands for the nuclear weapon states to engage in an unambiguous, even time-bound programme of disarmament are being strengthened, and pressure is increasing on India, Israel and Pakistan to clarify their status and accede to the NPT as non-nuclear weapon states.

The core of the disputes over the NPT is the demand that the division between nuclear and non-nuclear weapon states be eliminated. Disarmament agreements that will reinforce and extend the existing non-proliferation regime by constraining nuclear weapon potentials and inventories are being sought. Measures which can contribute to the disarmament of the existing nuclear weapon

states and place constraints on states which remain outside the NPT—e.g. a comprehensive test ban treaty (CTBT) and a fissile material production cut-off—have acquired near-universal support and thus become attainable political goals.

The activities of at least three non-nuclear weapon states parties to the NPT—Iran, Iraq and North Korea—were the subject of close scrutiny and accusations of non-compliance, highlighting the issues of how the rules of the non-proliferation regime should be specified and enforced, the basis for imposing restrictions on exports to NPT parties, and the desirability of changing the conceptual basis and the detailed application of the system of safeguards administered by the International Atomic Energy Agency (IAEA).

After the experience with Iraq, NPT parties were prepared to expand the role of the IAEA safeguards system and to accept enhanced monitoring of their nuclear activities. In addition, two new nuclear weapon-free zone (NWFZ) treaties are in existence in Africa and South-East Asia, while the 1967 Treaty of Tlatelolco is about to come fully into force. The nuclear non-proliferation regime can be argued to have been immeasurably strengthened in the five years since 1990.

This judgement may be seen as superficial by the end of the century if some current trends continue. The isolation of India, Israel and Pakistan is a danger. Difficult choices lie ahead, particularly for the nuclear non-proliferation policies of the USA. Strategies for dealing with NPT non-compliance and restraining the nuclear proliferation activities of states outside the treaty may lead to judgements that incentives are necessary to influence their behaviour, even if this runs counter to global norms and consensual rules and appears to reward regime renegades. US policies towards Iran and North Korea, and the international dissonance that has accompanied them, illustrate the consequences of the discrimination that can arise from this source. Yet such contradictions appear almost inevitable if effective policies are to be designed to handle the future nuclear weapon scenarios in South Asia and the Middle East.

The utility of nuclear weapons in roles other than deterring their use is increasingly questioned. The 1995 NPT Review and Extension Conference may mark the start of the final stage in making the existing NPT-based nuclear non-proliferation regime universal and the end of the first stage in the construction of a regime to facilitate a world free of nuclear weapons.

14. Nuclear arms control

Shannon Kile and Eric Arnett

1995 was a year of progress in the field of nuclear arms control, although one marked by indications that the political momentum towards further arms reductions and technological limitations was waning. In the light of the 'unfinished business' remaining on the arms control agenda, 1996 will be a watershed year in which the nuclear weapon states, which still possess over 20 000 nuclear weapons, move either decisively to advance that agenda or noticeably away from it.

The UN Conference on Disarmament (CD) made considerable progress towards concluding negotiations on a comprehensive nuclear test ban treaty (CTBT) and achieved a mandate to negotiate a convention banning the production of fissile material for nuclear explosives. However, despite consensus at the CD that the CTBT should be completed in 1996, there were signs that it might not be. China's positions in particular will have to be adjusted if this deadline is to be met, and several other issues remain to be resolved. Furthermore, the CD never formed a committee to negotiate the fissile material convention.

Implementation of the 1991 START I Treaty in reductions in strategic nuclear delivery vehicles proceeded ahead of schedule in the five states parties. However, the prospects for Russian ratification of the 1993 START II Treaty looked increasingly gloomy in the light of a number of technical and financial objections to the treaty raised in the parliament and the general souring of US–Russian relations.

International efforts to reduce the potential nuclear weapon-related dangers attending the breakup of the USSR intensified in 1995. There was growing bilateral cooperation between the USA and Belarus, Kazakhstan, Russia and Ukraine, with the US-funded Cooperative Threat Reduction Programme delivering large-scale assistance aimed primarily at strengthening central control over former Soviet nuclear warheads, improving their physical security and safety, and accelerating the dismantlement of their launch vehicles and associated infrastructure.

There was growing controversy over the 1972 Anti-Ballistic Missile (ABM) Treaty and moves in the US Congress to commit the USA to develop and deploy a national missile defence system. In addition, negotiations between Russia and the USA to clarify the scope of the treaty remained at an impasse; the USA proceeded with the testing of a new advanced-capability theatre missile defence interceptor despite the lack of agreement with Russia over the permissibility of such tests under the terms of the ABM Treaty. China, France and the UK indicated that deployment of new

missile defence systems could compel them to take compensatory measures that might require nuclear weapon testing.

Despite the ominous portents, there is good reason to believe that the CTB treaty will be opened for signature in 1996 and that Russia and the USA will find a *modus vivendi* for the ABM Treaty, START II and even further reductions. However, despite a renewed push for the global elimination of nuclear weapons in the near term by the non-nuclear weapon states in 1995, the process of reducing them to zero, if it continues, will do so only gradually, taking decades rather than years.

• *Appendix 14A, by Ragnhild Ferm, provides data on nuclear explosions from 1945 to 1995.*

15. Chemical and biological weapon developments and arms control

Thomas Stock, Maria Haug and Patricia Radler

1995 marked the 80th anniversary of the first use of chemical weapons (CW) in modern history. Efforts continued to obtain the 65 ratifications needed to bring the 1993 Chemical Weapons Convention (CWC) into force: there were 28 ratifications in 1995 but an additional 18 are needed. By the end of 1995 neither Russia nor the USA, the two major possessors of CW, had ratified the CWC. The most realistic estimate for entry into force of the CWC is the end of 1996 or early 1997.

The setting up of international machinery for the future Organisation for the Prohibition of Chemical Weapons (OPCW) in The Hague progressed, as did the work of the Preparatory Commission, but agreement is still lacking on issues such as those related to declaration and verification. Some of these issues may be solved when 65 documents of ratification have been deposited and it becomes clear which states will comprise the first conference of states parties.

The debate continues on Article XI (economic and technical development). The preparations for national implementation undertaken by many states show strong commitment to the CWC. What is most needed is the political will to solve the major remaining problems. There is still reason to believe that the CWC can be implemented in an effective and efficient manner.

The destruction of chemical weapons continued to be a major problem, particularly in Russia. The Russian CW destruction programme faces major financial problems even though Germany, the Netherlands, Sweden and the USA continue to donate funds and expertise. The Chemical Weapons Destruction Act was introduced in the Duma in December 1995. Doubts remain as to Russia's ability to destroy its stockpile within the

timeframes envisaged in the CWC. Both Russia and the USA must consider public opinion and environmental concerns when destroying chemical weapons. The cost of CW destruction continues to increase. The cost of destruction in the USA has grown to \$11.9 billion and in Russia to c. \$6 billion.

The problem of old chemical munitions dumped at sea continued to receive attention, especially in Europe, where concerns were raised about the environmental impact of these weapons. In 1995 Japan officially admitted that it had abandoned CW in China in World War II.

New information about the advanced state of the Iraqi biological weapon (BW) programme demonstrated that a country can develop a sophisticated offensive BW programme and keep it secret for years. Questions must be asked about how Iraq kept its BW programme and the magnitude of its other weapons of mass destruction programmes secret, despite four years of inspections by the UN Special Commission on Iraq (UNSCOM). The completeness and accuracy of information supplied by Iraq about its CW, missile and nuclear programmes are still being questioned. Until full declarations have been made it is unlikely that the sanctions on Iraq will be lifted. Under the plan for future monitoring and verification a detailed import and export control system has been approved, to enter into force following the lifting of sanctions.

The dangers of terrorist use of CW or BW were given terrifying prominence by the incident on the Tokyo underground system involving the nerve agent sarin. There is still no clear explanation of the Gulf War Syndrome, although studies in 1995 indicated that it is unlikely that it was caused by Iraqi use of CW or BW.

Allegations of CW and BW use in 1995 were confined to disproved or unsubstantiated incidents in areas that were difficult for experts to reach, a pattern consistent with previous years.

Issues related to the strengthening of the BWC received greater attention in 1995. The Ad Hoc Group of Experts considered various measures to strengthen the BWC. Despite progress in developing provisions to strengthen the BWC, it is doubtful that a verification protocol will be ready for the Fourth BWC Review Conference in 1996.

CBW defence received increased attention from policy makers and defence establishments in 1995. The world must contend with states and individuals who may acquire and use these weapons. It is impossible to construct a totally secure control system, but the entry into force of the CWC, the strengthening of the BWC and effective national legislation will make it more difficult for terrorists to manufacture, procure or use CW or BW.

16. Conventional arms control and security cooperation in Europe

Zdzislaw Lachowski

Since the end of the cold war the OSCE participating states have addressed the new scope, tasks and role of conventional arms control in Europe. Preventive diplomacy, crisis management, and other forms of peace missions and arrangements seemed effectively to replace traditional arms control approaches in the new, cooperative environment. The first half of the 1990s was primarily a period of arms control implementation, and only the most necessary changes were made to accommodate agreements to the new circumstances.

In 1995 the need for arms control and security cooperation was emphasized regionally with the evident peacekeeping failure and the US-led enforced peace arrangements in Bosnia and Herzegovina and, Europe-wide, with the completion of the final reduction phase of the 1990 Treaty on Conventional Armed Forces in Europe (the CFE Treaty) and of the reductions agreed under the 1992 Concluding Act of the Negotiation on Personnel Strength of Conventional Armed Forces in Europe (the CFE-1A Agreement). Conventional armaments were cut by nearly 50 000 heavy weapons. Along with massive Russian troop withdrawals from Central Europe and the Baltic states in 1994, this established an unprecedented core of military stability, transparency and predictability in Europe.

Against this generally positive background, adverse developments and a certain military assertiveness persist in Russia. The CFE flank dispute flared up in 1995, with repeated threats by the Russian military to withdraw from the treaty. The delayed NATO response resulted in a makeshift redrawing of the map, but this did not seem to satisfy Russia, which proposes sweeping changes aiming at renegotiation of the treaty. NATO insists on full implementation of the treaty, but enlargement of its membership to the east will call for a thorough reassessment and new approach to the conventional arms balance in Europe.

Facing the failure to stave off and resolve the conflicts raging in Eastern and South-eastern Europe, and unable to apply traditional arms control instruments, OSCE states have decided to give priority to developing a new framework for arms control. Intensive efforts have been thwarted by Russia, evidently seeking to avoid having its room for manoeuvre constrained with regard to the CFE Treaty and the arms control agenda, and the Budapest Ministerial Council meeting of December 1995 was unable to agree on the arms control framework. The need for arms control and

security cooperation was emphasized regionally with the peacekeeping failure and the US-led enforced peace arrangements in Bosnia. The OSCE was given a more active arms control mission in Bosnia and Herzegovina at the end of 1995. Negotiations on regional arms control and CSBMs in and around the former Yugoslavia, if accompanied by strong political will and concerted efforts, stand a chance to help enhance mutual confidence, reduce the risk of conflict and inject stability into this conflict-ridden area.

'Old thinking' still prevails and there is still no clear-cut concept of how to apply arms control to subregional and internal conflicts. This conceptual failure stems from the lack of determined political leadership and from the fear of undermining or dismantling the existing European arms control and security foundations. The international community therefore continues to stick to its slightly modified instruments while facing new types of crisis and conflict and the concomitant urgent need to address them with new tools. Arms control will have to find a strong conceptual and practical footing as part of the process of fundamental transformation of security relations.

Classic arms control, with its emphasis on calculating balances, is neither helpful nor sensible in the face of the qualitatively different challenges and threats posed by the new security environment. With the collapse of the bloc division, the changes, mostly driven by budgetary squeezes, which are taking place in armed forces will make numerical balances increasingly unattainable and outdated. Subregional stability and arms control arrangements will make this even more difficult. Thus, cooperative, stability-enhancing measures, including coercive measures like those in Bosnia and Herzegovina, are gaining in prominence.

Despite expectations that the Open Skies Treaty would enter into force in 1995, the ratification process was held up by the failure of Russia, Belarus and Ukraine to ratify the treaty.

- *Appendix 16A by Zdzislaw Lachowski.* OSCE participants paid greater attention to CSBMs in 1995 and addressed a wider range of arms control issues. In addition to the provisions of the Vienna Document 1994 of the Negotiations on Confidence- and Security-Building Measures, they were bound by the mandate of the 1994 CSCE/OSCE Review Conference and Summit Meeting to strengthen implementation of CSBMs, with emphasis on regional stability and complementarity between regional and OSCE-wide approaches. Discussions in 1995 were marked by a more active assessment of the application and applicability of CSBMs and a search for future measures. The Dayton Agreement envisaged negotiation of a regional structure for stability, including CSBMs based on the Vienna Document 1994 and

to be supplemented by regional CSBMs and measures for subregional arms control.

- *Appendix 16B, by Zdzislaw Lachowski,* reviews foreign troop deployments and withdrawals in Europe and post-Soviet Central Asia in 1995. The focus of foreign military presence in the area of the OSCE has shifted from the centre of the Euro-Asian continent to its peripheries. The character and tasks of foreign troops have also been modified. Peacekeeping and peace-enforcement forces are deployed along the south-eastern and eastern rims of the OSCE area, from Bosnia to Central Asia. In the former Yugoslavia they constitute a cooperative security effort, in the CIS area their 'collective' security goals are ambivalent, with the neighbouring major power being the chief 'peacekeeper'. Apart from the declared tasks of protecting the southern borders of Russia and the CIS, they seem to be preparing the ground to strengthen the predominant military presence and political influence. In 1995 Russia made a series of moves to further uphold its military influence in the former Soviet republics. US and other allied military presence in Western Europe is steadily declining.

17. Land-mines and blinding laser weapons: the Inhumane Weapons Convention

Jozef Goldblat

A Review Conference of the 1981 Convention on Prohibitions or Restrictions on the Use of Certain Conventional Weapons Which May Be Deemed to Be Excessively Injurious or to Have Indiscriminate Effects (CCW Convention), often referred to as the 'Inhumane Weapons' Convention, was held in Vienna in 1995, with two additional sessions in 1996. The CCW Convention entered into force in 1983. It is an 'umbrella treaty' to which specific agreements can be added as protocols. Protocol I prohibits the use of any weapon whose primary effect is to injure by fragments which cannot be detected in the body by the use of X-rays. Protocol II restricts the use of mines, booby-traps and other devices, and aims to prevent or reduce civilian casualties caused by these devices during and after hostilities. Protocol III restricts the use of incendiary devices.

The CCW Convention has attracted relatively few adherents; by 31 December 1995, 57 states had ratified it. Paradoxically, a number of African and Asian states (e.g., Afghanistan, Angola, Cambodia, Mozambique and Somalia) that have suffered greatly from the effects of inhumane conventional weapons, mainly land-mines, are not yet parties to the Convention. Some of these states participated as observers at the Review Confer-

ence together with other non-parties. Representatives of nearly 70 NGOs followed the proceedings and the International Committee of the Red Cross (ICRC) submitted reports and working papers and organized symposia and working groups prior to the Review Conference. The NGOs and the ICRC launched international media campaigns to ban anti-personnel mines.

The main tasks of the Review Conference were: to strengthen the provisions of Protocol II on the use of land-mines, booby-traps and other devices; and to consider the proposal for an additional protocol to restrict the use of certain laser weapons. Only the second task was completed, and an additional protocol was adopted—the Protocol on Blinding Laser Weapons to the CCW Convention, or Protocol IV. It prohibits the use of laser weapons that are specifically designed to cause permanent blindness to unenhanced vision and the transfer of blinding laser weapons to any recipient. Blinding as an incidental or collateral effect of military use of other laser systems, including lasers used against optical equipment, is exempt from the prohibition and the production of blinding laser weapons has not been outlawed.

Although the military utility of blinding laser weapons is limited, the adoption of Protocol IV was an important achievement. Blinding is a particularly abhorrent way of wounding the enemy and is more debilitating than most battlefield injuries because sight provides 80–90% of a person's sensory stimulation. Protection against the threat of blinding laser weapons is virtually impossible. This is the first time that both the use and the transfer of a specific weapon have been banned by the international humanitarian law of armed conflict.

The concluding session, held in May 1996, ended with the adoption of a revised text of Protocol II. The new text prohibits the use—in both international and non-international armed conflicts—of anti-personnel land-mines which cannot be detected with the generally available de-mining equipment. The use of non-detectable mines will still be allowed during the so-called 'grace period' which may exceed a decade. The revised Protocol II encourages the production and employment of mines equipped with self-destructing and self-deactivating mechanisms. However, modifications in the construction of mines, which may be delayed for many years, cannot significantly reduce the number of casualties caused by these weapons. Over 30 governments, including the US Government, have expressed themselves in favour of a total, internationally verified ban on anti-personnel land-mines. It remains to be seen whether and, if so, when and where they will engage in negotiations for such a ban.

Annexe A, by Ragnhild Ferm, summarizes the major multilateral and US–Russian (former Soviet) arms control agreements and lists the states parties as of 1 January 1996.

Annexe B, by Ragnhild Ferm, is a chronology of the major arms control and security events of 1995.
