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SIPRI Yearbook 2005

Armaments, Disarmament and International Security

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'Today's world cannot be secure without security for all, yet the events of the past few years have done little to bring global solutions closer. The UN Secretary-General was right to seek suggestions for new approaches from the High-level Panel that reported in December 2004, and right to endorse their major proposals for consideration at the 2005 UN General Assembly.'

Alyson J. K. Bailes

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HIGHLIGHTS from the SIPRI YEARBOOK 2005

Security and conflicts

- In 2004 it became obvious that maintaining control over Iraqi territory would require capabilities other than high-intensity warfare and more manpower than in the technology-intensive phase of the war.
- Many of the conflicts that continue to produce the greatest number of deaths, casualties and suffering are wars of long duration. Far from soliciting more attention, their long-standing and recurrent nature tend to make them less visible internationally. Although the current international emphasis on the prevention of violent conflict is a positive development, it is worth considering whether the emphasis of policy and research should be directed at addressing the resolution of the world's longest-standing major armed conflicts.
- Much of the current discussion of peace-building is focused on the macro level. What current operational experiences appear to illustrate, however, is that peace-building fails most often at the micro level, in the content and delivery of specific security, rule-of-law, economic, social and political reforms.
- Nationally led 'coalitions of the willing' of the kind that undertook the military actions in Afghanistan (2002) and Iraq (2003) pose special challenges for parliamentary oversight, since the interstate component of decision making is not carried out through an established, transparent multilateral institutional process.
- Military expenditure by states in the Middle East is high and shows a rising trend since 1996. Conventional arms races are unconstrained, but developments related to weapons of mass destruction are the ones that receive international attention.
- Since the 1980s, the introduction of a more open economic model in most states of the Latin American and Caribbean region has been accompanied by the growth of new regional structures, the dying out of interstate conflicts and a reduction in intra-state conflicts.

Military spending and armaments

- In the new security environment, which focuses on insecurity in the South and greater global security interdependence, there is an increasing awareness of the ineffectiveness of military means for addressing threats and challenges to security and a growing recognition of the need for global action.
- World military expenditure exceeded \$1 trillion in 2004. The USA accounted for 47 per cent of this spending.
- The combined arms sales of the top 100 arms-producing companies in 2003 were 25 per cent (in current dollars) higher than in 2002.
- China is almost completely dependent on Russia for its arms imports, but its relationship is changing from a recipient of complete weapons to a recipient of components and technology to be used in Chinese weapon platforms. There are indications that China is anxious to gain access to other than Russian technology, partly because that technology is becoming outdated.

Non-proliferation, arms control and disarmament

- In April 2004 the UN Security Council adopted Resolution 1540, an instruction to UN member states that they must legislate nationally to introduce effective controls on nuclear, biological and chemical weapon proliferation-sensitive items. The resolution was adopted under Chapter VII of the UN Charter, leaving open the potential use of enforcement measures by the Security Council against states failing to comply with this instruction.
- The controversies over the North Korean and Iranian nuclear programmes led to renewed interest in proposals for limiting civil uranium-enrichment and plutonium-reprocessing capabilities on a worldwide basis.
- A number of official inquiries into the handling of intelligence concerning Iraq's weapon programmes, including how it had been interpreted or presented, published reports in 2004. The inquiries found a common theme that pre-war assessments were inaccurate and unsupported by the available evidence.
- Since Libya's policy change it has become clear that it received considerable foreign assistance to procure sensitive nuclear materials, technologies and components as well as documentation related to nuclear weapon design. However, the relatively low technical absorption capacity of its scientific-industrial base meant that these 'short cuts' did not bring Libya appreciably closer to achieving a nuclear weapon capability.
- The NATO-Russia stalemate over the adapted CFE Treaty has lasted for over five years, but the second wave of NATO enlargement was accomplished despite Russia's concerns. In Europe, the focus has shifted towards 'soft' measures and arrangements, such as confidence- and security-building measures for stricter control of small arms, surplus ammunition and landmines.
- International non-proliferation and disarmament assistance (INDA) is becoming a significant element of the wider anti-proliferation effort. To increase the effectiveness of this assistance, the efforts made by the G8 group of industrialized states were redesigned in 2004. Traditionally undertaken as a bilateral effort between the USA and Russia, the functional and geographic scope of INDA programmes is expected to expand in future to include projects in a wider range of countries, cover new types of sensitive material and undertake projects in new countries.
- In 2004 the EU reviewed the instruments that have been used to create an effective and modern system for controlling transfers of both conventional weapons and dual-use items. As a result of these reviews, revisions will be made to both the arms and dual-use export control systems of the EU.
- Over the years, the law of the sea has been adapted to changed priorities. Today, the general rule of flag-state jurisdiction has yielded to the universal interest of combating the slave trade, piracy and drug trafficking. In future, the non-proliferation of weapons of mass destruction may also be added to this list.

SIPRI Yearbook 2005

Armaments, Disarmament and International Security

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Introduction

Alyson J. K. Bailes

Today's world cannot be secure without security for all, yet the events of the past few years have done little to bring global solutions closer. The United Nations Secretary-General was right to seek suggestions for new approaches from the High-level Panel that reported in December 2004, and right to endorse their major proposals for consideration at the 2005 UN General Assembly.

Part of the problem is that traditional means of assessing, and balancing, different actors' power in the global system are out of date. The USA today possesses supreme power by most reckonings, but was limited in what it could achieve in Iraq without institutional backing, and is labouring under heavy costs as a result. Many other states are preferring to seek influence as well as power by pooling their resources in multilateral groupings and/or working through systems of international regulation. It would be hasty to assume that the unilateral rather than the multilateral approach to wielding power will shape the globe's future.

Security solutions today must take account of the growing power of non-state actors: including not just terrorists, but the capacity for both good and ill of the private business sector, civil society movements, non-governmental organizations and the media. They must also tackle the challenge of a widening gap in security experience and priorities between most of the northern and most of the southern hemisphere. The greater emphasis placed recently on universal 'transnational' threats—as well as the growing economic clout of some 'southern' powers—should have underlined North–South interdependence and common interests. Sadly, many actions of the USA and other 'northern' powers since 2001 seem rather to have polarized attitudes further. It is, therefore, also timely that efforts should be made in 2005 to revive the UN's 'Millennium' agenda, with its emphasis on universal human development and its hopes of reducing inequality.

No single principle or method of action can, in fact, tackle the full complexity of the world's

security problems. The three main methods in current use each have their strengths and weaknesses.

External *intervention*, which does not just take military form but includes all methods used by stronger actors to alter the internal situation of weaker ones, may have many noble motives. However, it brings unpredictable costs and risks, and places heavy responsibilities on the intervener. As the reasons or excuses for intervening multiply, the world needs more than ever an international authority and code to govern such actions, and a better system to create and deploy the optimum mixture of resources, including non-state ones, for them.

The regulatory or *legislative* approach to governing security-related phenomena has practical as well as normative advantages, not least in covering non-traditional actors. Present approaches, however, have yet to solve the challenges of universality, fairness and ownership, enforceability and enforcement.

Creating security through *integration* is a relatively new method pushed furthest in Europe. It can encompass most of the threat spectrum and cope with non-state actors, but has its own weaknesses and problems of popular legitimacy. Even so, several other regions are currently exploring it.

The UN stands at the centre of all these challenges and of debates on solving them. Properly understood, enhancing its role offers advantages to the strong as well as the weak. Yet the UN does not govern all (e.g., monetary and economic) dimensions of global action relevant to security, and the norms and goals it sets require the help of many others for fulfilment. All actors that have the power to respond to the proposals of the High-level Panel on Threats, Challenges and Change have a shared responsibility to help realize them: 'the buck stops here'.

Appendix A contains a synopsis of *A More Secure World: Our Shared Responsibility, Report of the High-level Panel on Threats, Challenges and Change*.

1. Euro-Atlantic security and institutions

Pál Dunay and Zdzislaw Lachowski

In 2004 the international policies of many states in the Euro-Atlantic area were determined by political processes that started in 2003. Trans-atlantic partners worked to reduce the damage to their mutual relationships caused by the Iraq conflict. The USA began its return to multilateralism through various institutions, although not without hesitation and regular attempts to unilaterally set the agenda.

In 2004 it became obvious that maintaining control over Iraqi territory would require capabilities other than high-intensity warfare and more manpower than in the technology-intensive phase of the war. The two main underlying reasons for the war on Iraq—the alleged terrorist connections of the regime and its possession of weapons of mass destruction—were revealed as hollow. This caused problems for many democracies with troops in Iraq. Some, such as Hungary and Spain, withdrew their forces and others considered doing so—adding to the fragility of the situation.

The USA has continued to develop an inclusive partnership approach to ensure the necessary international support to fight terrorism and gain more effective intelligence. The USA has increasingly recognized that the EU is an indispensable partner in these activities.

In the US presidential election campaign, the two main parties offered little alternative thinking in the main security-related areas—Iraq, homeland security and intelligence reform. The result of the election focused European states on the need to find a way to work with the Bush Administration.

NATO's efforts to heal the transatlantic rift resulted in an expansion of the organization's activities outside its treaty area of operation. Nonetheless, there was continued resistance to making Iraq a NATO operation. The challenge is to overcome the perception that NATO is a 'forum for taking decisions on operations' in order to regain its role as a 'central forum for political debate and decision making'.

The EU has continued to develop its capacity to become a credible security actor. This was demonstrated by the adoption of Headline Goal 2010, which provides for a qualitative strengthening of crisis management and defence capabilities; the launch of the European Defence Agency;

and the gradual putting into practice of the battle group concept, as well as a new EU military mission in Bosnia and Herzegovina. The European Neighbourhood Policy moved closer to realization—bilateral accords on cooperation between the EU and some neighbouring states were signed at the end of the year.

A new divide seems to be emerging along the eastern boundaries of Europe. The leaderships of a number of countries in Eastern Europe and Central Asia are increasingly resentful of the spread of democracy, including to some of their own neighbours, and regard it as a challenge to the survival of their regimes. Repressive reactions are, however, likely to make internal dynamics more unstable and eventual changes more violent—with consequences that will spread at least temporarily beyond the frontiers of the states concerned. The situation may bring renewed tensions in West–East relations in the years to come.

Appendix 1A, by Pál Dunay, discusses attempts to reform the Organization for Security and Co-operation in Europe. Despite landmark political changes that affected both its environment and its relevance, the OSCE proved highly adaptable in the 1990s. Today, however, the question of reform is raised by an overall decline in the institution's importance and its gradual marginalization. Of the five key features that used to distinguish the OSCE—comprehensive participation by the Euro-Atlantic states, legitimacy when addressing domestic issues, a focus on the whole conflict cycle, a home for otherwise isolated nations, and a relatively weak and non-constraining institutional structure—none any longer provides a unique advantage in the European context. A more basic problem is that either the OSCE's characteristic issues are seen as a low priority or, if given a high priority, they are taken over by other organizations. Consequently, the OSCE security agenda is progressively being emptied of its content. A further problem is that some states have recently adopted a highly critical stance with regard to the OSCE, and pressed for sometimes retrograde 'reforms' apparently more as a matter of expediency than with Europe's best security interests in view.

2. Major armed conflicts

Renata Dwan and Caroline Holmqvist

All the 19 conflicts recorded as 'major armed conflicts' in 2004—those causing over 1000 battle-related deaths in any one year—were classified as intra-state conflicts. Only three of these—the conflict against al-Qaeda, the conflict in Iraq and the conflict in Darfur, Sudan—are less than 10 years old. However, in a globalized world, intra-state conflicts are increasingly becoming international in nature and in effect. The complexity and diversity of these conflicts challenge the distinction between the 'internal' and the 'external', in turn calling into question the basis on which conflicts are classified and addressed.

Contemporary intra-state conflicts—the diversity of warring parties and their multiple grievances; the evolving tactics in conflict and their consequences for civilians; and the shifting location and containment of intra-state conflict—complicate traditional approaches to their analysis and management. While greater attention to the interconnection with the international community is welcome, it is also important not to overstate the global dimension of intra-state conflict.

Although a number of conflicts in 2004 had international dimensions in terms of motivations, warring parties, location, funding and resolution efforts, many were also noteworthy for their localized nature—'small' wars with big costs—as developments in the eastern provinces of the Democratic Republic of the Congo and Indonesia (Aceh) illustrated. Conflicts in Burundi, Colombia and Sudan indicated how a multiplicity and irregularity of rebel parties, as well as inter-rebel hostility, can complicate conflict dynamics and efforts to manage and resolve them.

Paradoxically, the long-standing and recurrent nature of many conflicts may make them less visible internationally, as is illustrated by conflicts in Nepal and Uganda, both of which inflicted heavy costs on civilian populations but attracted scant media attention in 2004.

In a reversal of the classic spill-over of conflict from intra- to inter-state, developments in Iraq during 2004 raised the prospect of an international conflict creating a fully fledged civil war. Although the Iraqi conflict eventually displayed many features common to conflicts elsewhere—a diversity of warring parties, deliberate targeting of civilians, use of unconventional tactics and the

local focus of conflict zones—its particularities in origin and trajectory merit separate consideration.

Appendix 2A, by Lotta Harbom and Peter Wallensteen, presents data on the patterns of major armed conflicts in the period 1990–2004. In 2004 there were 19 major armed conflicts in 17 locations. The majority of the conflicts were fought in Africa and Asia (six in each region), and three were registered for the Middle East, three for the Americas and one for Europe. All the conflicts were intra-state, although external states contributed regular troops to three conflicts: in Rwanda, where Burundi contributed troops on the side of the Rwandan Government; in the conflict between the USA and al-Qaeda, where a number of states contributed troops to a multinational coalition supporting the US Government; and in Iraq, where the US-led coalition contributed troops to the Iraqi interim government. Three new conflicts were registered for 2004: Rwanda, Iraq and Uganda. Both the number of conflicts and the number of conflict locations in 2004 were lower than in 2003, when there were 20 major armed conflicts in 18 locations.

Appendix 2B explains the definitions, sources and methods for the data collection presented in appendix 2A.

3. Multilateral peace missions: challenges of peace-building

Renata Dwan and Sharon Wiharta

At the end of 2004 over 64 000 military and civilian police personnel and 4000 civilian personnel were deployed in 21 UN missions, arguably putting the UN in danger of overstretching its institutional capacities. At the same time 35 peace missions, with a total of 225 385 military and civilian personnel, were carried out by regional organizations and UN-sanctioned non-standing coalitions of states.

It is against this backdrop that the report of the UN High-level Panel on Threats, Challenges and Change addressed UN peace operations, in particular the challenge of post-conflict peace-building, and proposed the establishment of a Peace-building Commission, which UN Secretary-General Kofi Annan endorsed in his own report, 'In Larger Freedom: Towards Development, Security and Human Rights for All', in March 2005. Peace-building is an increasingly central component of multilateral peace missions, as reflected in the fact that the mandates of 17 of the UN missions launched since 1999 include peace-building tasks. Peace-building is a process involving external actors enabling a post-conflict society to function in the political, social and economic spheres.

The magnitude of the peace-building task means that priorities have to be set. Over the past few years, a fair degree of consensus has emerged on what these tasks are and the order in which they should be carried out. However, current peace-building endeavours under way in Afghanistan, Côte d'Ivoire, Haiti, Iraq and Liberia demonstrate that the challenges of magnitude and legitimacy (both international and local) intersect to make the practical tasks of peace-building difficult to address.

Re-establishing the state's ability to provide security—or 'renationalizing' the use of force and the prevention of violence within society—is the first priority. Afghanistan is a vivid example of the complexities involved: the lack of progress with demobilization, disarmament and reintegration there contributed to the deterioration of the security situation throughout the country.

The second priority area is the establishment of functioning law and order within the society. Without the necessary legal and administrative structures and mechanisms in place, economic reconstruction and social rehabilitation cannot

take place. In Liberia, the need to set up a temporary skeletal legal system before embarking on a substantive overhaul of the rule of law highlights the challenge of balancing short-term versus long-term goals. The third and fourth priority areas for peace-building—economic reconstruction and governance and participation—are considerably more difficult to prioritize. Perfect sequencing of peace-building tasks, however, does not necessarily guarantee sustainability. What is needed but often neglected is local participation in the process.

A cursory glance at the scope of the tasks and responsibilities of contemporary peace operations raises the question of how the UN and regional organizations can continue to effectively oversee multiple peace operations of a multi-dimensional nature. A variety of responses have been offered. Some have argued that a minimalist approach towards peace-building should be taken and that the role of the international community should be limited to establishing security, leaving the rest to the local population. Others argue that a period of 'benevolent autocracy' from external actors offers the best chance for successful peace-building.

4. Governing the use of force under international auspices: deficits in parliamentary accountability

Hans Born and Heiner Hänggi

Two-thirds of all UN-authorized peace missions took place in the past decade, and many organizations in Europe and elsewhere are now launching such operations more frequently. While debates abound on the legality and legitimacy of international intervention, less attention is paid to democratic accountability for such actions and, in particular, the role of representative assemblies.

In a democracy, the parliament is the central locus for the executive's accountability to the people, including its answerability for decisions on the use of force. However, even among the developed nations of NATO and the EU, parliaments vary widely in their ability to exercise legislative, financial and political control over government actions in this field. In terms of formal oversight, some have the right to pre-approve the commitment of their country's forces to international missions but others (including those of France, the UK and the USA) in practice do not. Even those assemblies with more extensive rights may be handicapped by lack of resources (e.g., for committee work, research and travel) and may have limited interest or will to contest government decisions. This uneven pattern of parliamentary involvement creates a *prima facie* 'democratic deficit' at the level of national decision making.

The international organizations most commonly mandating and engaging in peace missions do not all have a clear 'parliamentary' element in their own structures. In the UN, key bodies concerned with security functions are attended only by states and it can be difficult even for some troop contributing nations to get an insight into Security Council deliberations on establishing and adapting the relevant missions' mandates. Decision making by NATO is also intergovernmental and based on confidentiality of proceedings in the Permanent Council and other key meetings. The NATO Parliamentary Assembly brings together national parliamentarians for debate but has no budgeting or consultative powers regarding NATO missions. Any element of parliamentary scrutiny over UN or NATO operations must thus be exercised through national channels from the national level.

The EU has a directly elected European Parliament, but this has only limited budgetary pow-

ers and rights to information—and no rights at all of co-decision—in the field of the European Security and Defence Policy (ESDP), which among other matters covers EU-led peace missions. At the same time, it is hard for national parliamentarians to trace the process of ESDP decision making, which is further complicated by the interplay of powers between the Council of Ministers, the European Commission and the European Parliament.

Nationally led 'coalitions of the willing' of the kind that undertook the military actions in Afghanistan (2002) and Iraq (2003) pose the greatest structural challenges of all for parliamentary oversight, since the interstate component of decision making is not carried out through an established, transparent multilateral institutional process.

There appears to be a double deficit in parliaments' ability to determine, influence, track and judge international peace missions, both at the national and at the international level of executive responsibility. The basic question is, of course, what rights parliaments *should* have, but their near-exclusion from the sensitive judgements surrounding intervention seems incongruous in an age that generally emphasises democracy. In the short term, modest improvements could be sought by more networking among national parliaments, enhanced procedural rights and information handling methods, and—at international level—more reporting to parliamentary bodies and a greater role both for the European Parliament and national assemblies in scrutinizing the ESDP.

5. The greater Middle East

Rosemary Hollis

The greater Middle East is a region little penetrated by the political effects of globalization, but highly prone to 'new-style' transnational threats as well as older-style inter-state tensions. The apparent security deficit has recently drawn new efforts at international engagement and 'region building', by NATO and the EU among other organizations.

Much of the region's state structure is of post-Ottoman creation, and has been shaken by several crises during its first century. Many boundaries and territories remain disputed. Apart from the dramatic regime changes in Afghanistan and Iraq, there are specific security issues linked with Syria and Lebanon, Turkey and the Kurds, and several others. Cutting across national and bilateral agendas are four main issues with region-wide impact: the USA's military presence and security ambitions; the stubborn conflict between Israel and the Palestinians—where international peace efforts failed to set the agenda in 2004 despite new leadership on the Palestinian side; the regional fall-out of the Iraqi conflict; and terrorism, where local and outside states find it hard even to agree on the source and nature of the challenge.

Military expenditure by the region's states is high and shows a rising trend since 1996. Conventional arms races are unconstrained, but developments related to weapons of mass destruction are the ones that receive international attention. The greatest current concern is over Iran, including its potential missile delivery capability.

The number of multilateral institutional initiatives focused on the region has grown recently, while the level of home-bred regionalism remains very modest. NATO, apart from its operational engagement in Afghanistan and incipiently in Iraq, decided at its Istanbul Summit in July 2004 to enhance its existing Mediterranean Dialogue Initiative and to launch a new Istanbul Cooperation Initiative. The latter aims particularly to reach out to Arab partners and offers a menu of possible cooperation options for each state. Its impact on the region's fundamental security problems may be inhibited, not just by political factors, but by NATO's own limited focus and competence.

Among indigenous cooperation structures, the Gulf Cooperation Council (GCC) aims to

promote integration in several dimensions including joint military capabilities, but has made little progress in this direction. The Arab League made a declaration in March 2005 covering security issues in the Middle East and Sudan, and also support for the principle of political reform. In February 2004 Algeria, Egypt, Jordan and Morocco signed the Agadir Agreement, aiming to create a free trade area among themselves.

The EU and the Group of Eight (G8) industrialized nations, as well as the USA, have highlighted themes of democracy and good governance in their latest regional initiatives. The USA has earmarked some \$70 million for aid related to reform in the region, while the G8 in June 2004 adopted new programmes including a joint 'Forum for the Future' with Middle Eastern and North African countries. The EU's new Strategic Partnership with the Mediterranean and Middle East attempts to link economic relations with the promotion of good governance and security-related goals such as anti-terrorism and non-proliferation. Experience thus far suggests that the impact of EU 'soft power' on realities in the greater Middle East is still much inferior (for good or ill) to that of the USA's exercise of 'hard power'.

Basic questions still remain open about the inter-state order in this region: whether and how a Palestinian state will take root, and what will be the fate of the new Iraq. The risk of the whole order collapsing may be small but a zero-sum approach to coexistence and competition seems set to continue. An Iranian nuclear breakout and/or US retaliation could increase polarization among local actors, as well as instability. However, efforts are continuing to achieve more peaceful solutions, and the cost of the alternatives might yet cause calculations to shift in favour of a cooperative security approach.

6. Latin America and the Caribbean: security and defence in the post-cold war era

Maria Cristina Rosas

Since the 1980s, the introduction of a more open economic model in most states of the Latin American (including the Caribbean) region has been accompanied by the growth of new regional structures, the dying out of interstate conflicts and a reduction in intra-state conflicts.

Most but not all of the region's states moved from colonial to independent national status between 1804 and the present. There are still a number of disputes over boundaries and territorial status. 'Overspill' of security problems can cause tension between states and the region is exposed to many transnational threats such as terrorism and smuggling. National rivalries such as that between Brazil and Mexico have handicapped efforts to make common cause, notably in the economic sphere.

Post-cold war regionalism in this area does reflect some new ambitions such as a more self-sufficient 'bottom-up' approach, a broader security-relevant agenda, and attention to the concerns of people as well as regimes. Not all dimensions have, however, been successfully coordinated—for instance, 'free trade' agreements are being pursued along a distinct track.

Defence budgets of the region's countries have fallen since the 1980s and are now, in proportional terms, some of the world's lowest. Many overlapping initiatives have been developed for confidence building in the military sphere and these include efforts to limit various categories of weapons, although there is no system of restraint on major conventional armaments. While competitive arms purchases may still occur and political control of the military is a work in progress, ideas of cooperative non-zero-sum security do seem widely accepted and the number of explicit multilateral initiatives has played a part in this.

Many Latin American states are now 'exporting security' in the form of contributions to international peacekeeping. Twelve such countries provide 9.5 per cent in total of all personnel engaged in UN peacekeeping operations, with the mission in Haiti (MINUSTAH) the largest single commitment. There have also been regionally organized peacekeeping and assistance missions. Committing troops to such missions is economically advantageous for states but also helps to promote reform and professionalization of the military.

The USA is by far the most important external security actor in the region. Since the cold war, when it was focused on battling Communism, the level of US military support has dropped and its pattern changed. Colombia is now the single largest recipient of US aid, in a highly 'militarized' form, for its struggle with internal armed insurgents linked with the drugs trade. Other countries receive a growing degree of US assistance with force training. While Latin American leaders have sympathized with the US stand against terrorism, some in the region are now concerned by the way that anti-terrorist motives seem to colour all US perceptions of the region at the expense of other rationales for cooperation and aid. Several smaller Central and Latin American countries supported the US-led coalition in Iraq but only El Salvador still has forces there.

The latest developments in regional organizations' agendas (e.g., at the Organization of American States) show some effort by local states to assert their own concerns, for example, on aspects of security where the USA is currently less engaged. In reality the area's most fundamental problems may be those of economic vulnerability and unequal development, which in turn feed internal unrest. With or without the USA, only a stronger common political will among Latin American states themselves can offer hope of mastering these challenges.

7. Financing security in a global context

Elisabeth Sköns

In the current security environment, the focus has shifted from the superpower confrontation of the cold war in the North to insecurity in the developing countries in the South; from state territorial security to broader and deeper security dimensions; and towards greater global security interdependence. All this feeds a perception of the ineffectiveness and growing irrelevance of military means for addressing security threats and challenges.

There is also a growing recognition of the need for global action to address these threats and challenges. In particular, the North has become more receptive to the argument that it has a shared interest in addressing the security problems and sources of insecurity in the South. Intra-state armed conflicts in the South are increasingly perceived as having international consequences, for example, through drug trafficking and refugee flows. Economic and environmental security and organized crime have a strong transnational dimension. The threat of transnational terrorism has also contributed to increased awareness of global interlinkages in security.

However, the pattern of security financing still appears to be strongly focused on traditional national military security objectives. For example, although statistics do not allow a strict comparison, it appears that resources allocated to peace missions are small compared with military expenditure on territorial defence. Government accounts are not structured to show the total amount of government expenditure on non-military security provision. It is therefore impossible to monitor the extent to which countries are adapting to the requirement to shift the balance between military and non-military means of addressing security problems.

International financing of peace and security on a fundamentally different scale to today would require new thinking on and priorities for resource allocation. A North–South shift of resources for these purposes would have to be based on the enlightened self-interest of the North. However, that would require substantially improved knowledge about how to promote security and prevent armed conflict. Even more, it would require wide dissemination of such knowledge to the broader population in the North, in order to make these

countries prepared to invest in the future security of countries far away.

Available statistics are not adapted to the purpose of examining priorities in resource allocation for security purposes outside the military domain or through multilateral organizations. It would be useful to begin thinking about designing new types of public expenditure categories that would reflect non-military and international expenditure on peace and security.

8. Military expenditure

**Elisabeth Sköns, Wuyi Omitoogun,
Catalina Perdomo and Petter Stålenheim**

World military expenditure in 2004 is estimated to have been \$975 billion at constant (2003) prices and exchange rates or \$1035 billion in current dollars. This is just 6 per cent lower in real terms than at the 1987–88 peak of cold war world military spending. As a global average, 2004 world military expenditure corresponds to \$162 per capita and 2.6 per cent of world GDP. However, there is a wide variation between regions and countries in the scale and economic burden of military spending. The average annual rate of increase in world military expenditure over the 10-year period 1995–2004 was 2.4 per cent in real terms. This average encompasses two distinct trends: first, the post-cold war reduction in military spending which culminated around 1998; second, an increasing trend since 1998, accelerating to an annual average increase of around 6 per cent in real terms over the three-year period 2002–2004.

The major determinant of the world trend in military expenditure is the change in the USA, which makes up 47 per cent of the world total. US military expenditure has increased rapidly during the period 2002–2004 as a result of massive budgetary allocations for the ‘global war on terrorism’, primarily for military operations in Afghanistan and Iraq. These have been funded through supplementary appropriations on top of the regular budget. The supplementary appropriations for this purpose allocated to the Department of Defense for financial years 2003–2005 amounted to approximately \$238 billion and exceeded the combined military spending of Africa, Latin America, Asia (except Japan but including China) and the Middle East in 2004 (\$193 billion in current dollars), that is, of the entire developing world. Thus, while regular military spending has also increased in the USA as well as in several other countries and regions, the main explanation for the current level of and trend in world military spending is the spending on military operations abroad by the USA, and to a lesser extent by its coalition partners.

In 2004 there was a growing debate related to the sustainability of the current military efforts of the USA. Questions were raised about the contribution of military expenditure to the growing fiscal deficit and its future impact on economic

growth. A related concern is whether military expenditure will crowd out non-military government expenditure. The debate has been exacerbated by uncertainties over future trends in expenditure for military operations in Iraq.

There is a recognition that security is a prerequisite for sustainable development, which has led to a debate concerning the different ways in which donors should support security sector reform. Some countries fear that extending the definition of official development assistance to cover security-related issues may diminish overall support for social and economic aid, and could even result in cold war-style assistance with the strategic interests of donors dictating the direction of their aid policy. Two ongoing support programmes for security activities in crisis-prone developing countries—US assistance to Colombia and British support for the security sector in Sierra Leone—are examples of emerging patterns of security assistance provided in the context of development assistance but which indirectly enhance security at home.

Appendix 8A, by **Petter Stålenheim, Wuyi Omitoogun** and **Catalina Perdomo**, contains tables of military expenditure by region, country and income group, in local currency and constant dollars and as a share of gross domestic product for the period 1995–2004.

Appendix 8B, by **Petter Stålenheim**, explains the sources for and methods of military expenditure data collection.

Appendix 8C, by **Elisabeth Sköns** and **Natasza Nazet**, discusses and presents data on the reporting of military expenditure data.

9. Arms production

Elisabeth Sköns and Eamon Surry

New data from SIPRI shows that the value of the combined arms sales of the top 100 companies in the world (excluding China) in 2003 was \$236 billion. The top 100 companies increased their combined arms sales in 2003 by 25 per cent in current dollars. Of these 100 companies, 38 are based in the USA and one in Canada. Together, these accounted for 63.2 per cent of arms sales by the top 100, while 42 European companies (including 6 based in Russia) accounted for another 30.5 per cent of sales.

The process of adaptation to the new security environment continues. In the USA the industry is adjusting to the new demands created by the ongoing transformation of the armed forces, the privatization of military services and the increasing importance of the homeland security sector. In Europe the emphasis is on intra-European consolidation and access to the expanding US 'market', that is, the US Government's arms procurement budget.

The process of concentration in the arms industry has been slowing down since the late 1990s. While still significant, mega-mergers no longer dominate the pattern of acquisition. In 2003 six acquisitions took place with deal values exceeding \$1 billion. In 2004 there was only one deal of this size: the buyout by Italian firm Finmeccanica of the British firm GKN's 50 per cent stake in their joint venture—the helicopter company AgustaWestland—and related assets for €1.59 billion (\$1.98 billion).

In the past decade the top arms-producing companies have grown enormously in size, primarily through acquisitions. They are now comparable in economic importance to many other multinational corporations and, like them, the largest arms-producing companies have sales of a magnitude that make them major economic entities, not only in their domestic environment but also globally. The value of their arms sales exceeds the GDP of most low-income countries and their total sales compare to the GDPs of medium-sized developed or industrializing countries. A comparison for the entire group of top 100 companies shows that the value of their total sales in 2003 is roughly equal to the combined national output of all 61 low-income countries in 2003.

With the increasing outsourcing of services from defence ministries and armed forces to the

private sector, a growing number of the top 100 companies specialize in services. This trend is most pronounced in the USA, but exists also in West European industry.

Consolidation of the European military shipbuilding industry continued in 2004. These efforts were focused on two initiatives: to create a naval counterpart to what EADS represents in aerospace, and to consolidate and develop an industrial strategy for the British shipbuilding industry. However, little progress was made and the future structure of the European shipbuilding industry remains uncertain.

The war in Iraq has increased the share of the arms industry held by companies providing services and has reinforced the focus on new military technologies. There is only limited transparency in the contracting process for work in Iraq. What transparency there is depends on NGOs compiling information about the size and content of contracts and about the companies that are awarded them.

Company reporting on the military share of their sales is rare and incomplete, and reporting on the military share of their exports and research and development is almost nonexistent. Of the 150 companies included in a table on arms industry data transparency, only 41 can be described as having fully and completely disclosed the extent of their arms sales in a company document.

Only limited information is available on commercial arms sales worldwide. This lack of data makes it difficult to establish a firm foundation for political and public discussion of issues relating to arms production and arms sales. Pressures on companies to report their arms sales are weak and current reporting relies entirely on voluntary disclosure of information by the companies themselves. Comprehensive, regular and standardized reporting can be achieved only through internationally harmonized legal requirements for companies to report.

Appendix 9A, by Eamon Surry and the SIPRI Arms Industry Network, contains a table of data on the 100 largest arms producing companies in 2003.

Appendix 9B, by Eamon Surry, contains a table on mergers and acquisitions in the North American and European arms industry in 2004.

10. International arms transfers

Siemon T. Wezeman and Mark Bromley

The trend in transfers of major conventional arms, as measured by the SIPRI trend-indicator value, is apparently changing from a downward trend since 1997 to a more or less stable trend for 2000–2002 to a slightly upward trend in 2003–2004. Financial data from national export reports show a more or less similar change. However, it is too early to judge if this is really a trend or only a matter of annual fluctuations.

Russia established itself as the main supplier of major conventional weapons for the five-year period 2000–2004, replacing the USA which was the main supplier for many years. However, even Russian officials expect a decline in Russian sales in the near future since Russian equipment is mainly based on old technology and Russian military research and development is lagging far behind. Together, France, Germany, Russia, the UK and the USA made up 81 per cent of all deliveries in 2000–2004. The combined deliveries of all 25 EU states to non-EU states made up some 19 per cent of all deliveries in 2000–2004, making the EU the third largest exporter.

China and India were the two main recipients of major conventional weapons in 2004. China is almost completely dependent on Russia for its arms imports, but its relationship is changing from a recipient of complete weapons to a recipient of components and technology to be used in Chinese weapon platforms. There are indications that China is anxious to gain access to other than Russian technology, partly because that technology is becoming outdated. India is also a major Russian client, but here Russia faces strong competition from France, the UK and other European suppliers, as well as from Israel and most recently from the USA.

EU–US relations became strained in 2004 over the issue of technology transfers. The USA has been reluctant to share technology with close European allies even in joint ventures such as the F-35 JSF combat aircraft.

The EU's plans to lift its arms embargo against China further strained relations. The non-binding and loosely drafted embargo was established in 1989 in reaction to Chinese human rights abuses. Today, many EU governments consider the embargo outdated and a barrier to improving Chinese–EU relations. The embargo has not stopped several European countries from sup-

plying military technology to China, and most EU member states have argued that lifting the embargo would not mean increases in arms sales. Many EU governments feel that there should still be clear and strong limitations on the arms trade with China, either by keeping the embargo or by improving the 1998 EU Code of Conduct on Arms Exports. The USA strongly opposes lifting the embargo in order to prevent a Chinese military build-up and has threatened the EU with sanctions if the embargo is lifted.

Public transparency in arms transfers increased again slightly, mainly in the EU where several countries improved their reporting and where 10 new EU members are now obliged to report under the EU Code of Conduct. At the international level, man-portable air defence systems and light artillery were added to the UN Register of Conventional Arms.

Appendices 10A and 10B, by Siemon T. Wezeman and Mark Bromley, provide data on the transfers of major conventional weapons.

Appendix 10C, by Siemon T. Wezeman and Mark Bromley, explains the sources and methods for the data collection.

11. Arms control and the non-proliferation process

Ian Anthony

The use of force to compel Iraqi compliance with UN resolutions intended to prevent illegal nuclear, biological and chemical (NBC) weapon programmes as well as missile delivery systems for such weapons was deeply divisive. The military action and its aftermath underlined that a stable and peaceful international order requires effective controls on NBC weapons. A failure to establish effective controls through negotiation could lead to further conflict in the future. There is also a need to establish controls on other types of weapon and on dangerous and sensitive materials, and to regulate the behaviour of both state and non-state actors.

For almost a decade there has been little progress in multilateral arms control in general, and some processes have suffered severe setbacks. A number of cases have come to light in which states violated their obligations under arms control treaties, which undermined confidence in the value of global arms control agreements as instruments for security building. In these conditions states have tended not to consider global measures first when contemplating how to make progress in solving particular problems. Instead, efforts to achieve the objectives of arms control have been carried forward mainly through informal political cooperation among limited groups of states or through regional processes. However, after a period in which arms control has been perceived as an issue of low political salience, in 2004 some new international efforts were made to strengthen global processes as part of an emerging mosaic of arms control measures.

In April 2004 the UN Security Council adopted Resolution 1540, affirming its resolve to take appropriate and effective action against any threat to international peace and security caused by the proliferation of NBC weapons and their means of delivery. Adopted under Chapter VII of the UN Charter, the resolution instructed UN member states to adopt and enforce appropriate and effective laws prohibiting any non-state actor from manufacturing, acquiring, possessing, developing, transporting, transferring or using NBC weapons and their means of delivery, in particular for terrorist purposes, as well as attempts to engage in any of the foregoing activities, participate in them as an accomplice, assist

or finance them. The resolution also instructed states to take and enforce effective measures to establish domestic controls to prevent the proliferation of NBC weapons and their means of delivery. Such measures were to include an inventory and accounting of proliferation-sensitive items, the physical protection of such items and effective measures to prevent illicit trafficking in them. Furthermore, states were instructed to put in place modern and effective national laws controlling export and trans-shipment of proliferation-sensitive items, and to establish and enforce appropriate criminal or civil penalties for violations of such laws.

In December 2004 UN Secretary-General Kofi Annan released the report of the UN High-level Panel on Threats, Challenges and Change, which highlighted the urgent need to establish effective controls on nuclear weapons and nuclear materials that can be used to make them as well as the pressing need for effective measures to reduce the threat of nuclear terrorism. Responding to the panel findings, the Secretary-General put forward his view that the global nuclear non-proliferation regime was in a precarious state and argued for urgent action on the recommendations contained in the report.

Appendix 11A contains UN Security Council Resolution 1540.

12. Nuclear arms control and non-proliferation

Shannon N. Kile

Developments in 2004 raised serious questions about the future of the nuclear non-proliferation regime and its principal legal foundation, the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT). Evidence emerged confirming the existence of a clandestine transnational network of companies and middlemen, centred around Pakistan's leading nuclear scientist, Abdul Qadeer Khan, that supplied sensitive nuclear technology and expertise to Iran and Libya and possibly to other states. This raised concern about the diffusion of nuclear weapon capabilities to non-state as well as state actors, and it spurred new initiatives aimed at preventing the illicit transfer of nuclear technologies and materials. There continued to be controversy over the nature of Iran's nuclear programme, as the International Atomic Energy Agency (IAEA) provided further detail about Iran's failure to declare important nuclear activities as required by its safeguards agreement with the agency. In addition, there was little progress made in the international talks on the future of North Korea's nuclear programme.

These developments led to proposals for repairing perceived shortcomings in the non-proliferation regime. There was particular interest in revisiting one of the key provisions of the NPT—the guarantee, contained in Article IV of the treaty, that non-nuclear weapon states have an 'inalienable right' to import and develop materials and technologies for use in civil nuclear energy programmes. Some experts cited the North Korean and Iranian nuclear programmes as evidence that Article IV creates a fundamental weakness in the NPT, in that it allows NPT parties seeking to acquire nuclear weapons to legally put in place the fuel cycle facilities needed for manufacturing these weapons under the cover of civil nuclear energy programmes. Concern about closing this perceived loophole led to growing interest in the idea of limiting civil uranium enrichment and plutonium reprocessing programmes to a handful of fully transparent nuclear fuel cycle facilities operating under multinational or international control.

The implementation of the NPT regime continued to generate controversy in 2004, as the third meeting of the Preparatory Committee for the

2005 NPT Review Conference ended in deadlock. The meeting highlighted deep differences between the states parties over the issue of responding to suspected or clear-cut cases of non-compliance and the perceived lack of commitment of some parties to fulfilling their treaty obligations. The inability of the parties to produce a report containing any substantive recommendations on treaty implementation issues, or even to adopt an agenda for the 2005 Review Conference, cast doubt on the prospects for a successful outcome to the Conference.

There was some important good news in 2004 for non-proliferation efforts. Libya implemented its December 2003 pledge to verifiably abandon and dismantle, under international inspection, its weapons of mass destruction (WMD) and ballistic missile programmes. Some observers believed that the Libyan action, following the removal of Saddam Hussein and the disclosure of Iran's nuclear programme, created a unique opportunity to make progress towards the goal of establishing a WMD-free zone in the Middle East.

Appendix 12A, by **Shannon N. Kile** and **Hans M. Kristensen**, contains tables of the nuclear forces held by the USA, Russia, the UK, France, China, India, Pakistan and Israel. In 2004 the five states defined by the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT) as nuclear weapon states—China, France, Russia, the UK and the USA—continued to deploy more than 13 000 operational nuclear weapons. If all warheads are counted—deployed, spares, those in both active and inactive storage, and 'pits' (plutonium cores) held in reserve—the five nuclear-weapon states possessed an estimated total of 32 300 warheads. All of these states, with the exception of the UK, had significant nuclear weapon modernization programmes under way. In the USA, Congress voted not to authorize funding for continued research work on new types of earth-penetrating and low yield nuclear weapons. Critics had charged that these programmes weakened international efforts to delegitimize nuclear weapons as military instruments.

India and Pakistan, which along with Israel are de facto nuclear weapon states outside the NPT, are believed to be increasing the number of their nuclear warheads and developing new, longer-range ballistic missiles for delivering them.

13. Chemical and biological warfare developments and arms control

Richard Guthrie, John Hart and Frida Kuhlau

In 2004 the states parties to the 1972 Biological and Toxin Weapons Convention (BTWC) held the second of their annual expert and political meetings, which considered ways to enhance international capabilities for responding to, investigating and mitigating the effects of cases of alleged use of biological or toxin weapons or suspicious outbreaks of disease. It also considered how to strengthen and broaden international institutional efforts and existing mechanisms for the surveillance, detection, diagnosis and combating of infectious diseases affecting humans, animals and plants.

The states parties to the 1993 Chemical Weapons Convention (CWC) approved a request by Libya to convert two former chemical weapon production facilities (CWPFs) for peaceful purposes, after Libya's chemical weapon (CW) programme had been dismantled under international supervision. The parties also decided to adopt a new system of budgeting for the operations of the Organisation for the Prohibition of Chemical Weapons (OPCW)—the third recent major managerial change at the OPCW following the removal of the original Director-General in 2002 and the introduction of limitations to staff tenure in 2003.

Destruction of CW continued. Six states declared possession of CW at the time the convention took legal force for them. Of 71 373 agent tonnes of declared CW, 10 698 tonnes had been verifiably destroyed as of 31 January 2005. The largest remaining CW stock to be destroyed is in Russia and further international assistance for this destruction was agreed in 2004.

In 2004 the Iraq Survey Group (ISG) completed its inspection and investigation activities into alleged nuclear, biological and chemical (NBC) weapon programmes and weapon-related activities in Iraq. In October the ISG released a substantial unclassified report on the search for such weapons and its findings.

Controversy continued over what had, or had not, been known about Iraqi activities and capabilities in the years before the military action that began in March 2003. A number of official inquiries into the handling of intelligence, including how it had been interpreted or presented, published reports during the year. The inquiries found a

common theme that pre-war assessments were inaccurate and unsupported by the available evidence. Government officials were accused of pressuring the intelligence community to produce intelligence to build a case for war, and the intelligence community was accused of generating inaccurate information.

In 2004 programmes were implemented in Iraq and Libya in order to redirect the work of scientists and technicians who were part of the countries' former NBC weapon and longer-range missile programmes.

On 2 December the UN High-level Panel on Threats, Challenges and Change published its report. In his introduction to the report, the UN Secretary-General welcomed the panel's 'innovative focus on issues of biological security' and noted the panel's 'attention to the deterioration of our global health system, its vulnerability to new infectious disease; and the promise and peril of advances in biotechnology'.

In response to continued widespread concern about the lack of monitoring and enforcement machinery under the BTWC, a number of states raised the possibility of making use of the authority of the UN Secretary-General to investigate alleged use of biological weapons. Addressing this subject within the BTWC meetings was resisted by other states parties. For example, the USA indicated that it felt that because these powers derived from UN resolutions citing the 1925 Geneva Protocol, it was not for the states parties of the BTWC to review these powers. A number of states parties (including Iran) expressed concern that the Secretary-General's mechanism was a distraction from a proper verification system for the BTWC.

14. Libya's renunciation of nuclear, biological and chemical weapons and ballistic missiles

John Hart and Shannon N. Kile

In a joint statement with the UK and the USA on 19 December 2003, Libya publicly renounced nuclear, biological and chemical (NBC) weapons and agreed to restrict itself to the possession of ballistic missiles with a range of no greater than 300 km. In 2004 details of an informal nuclear weapon suppliers' network emerged and a new basis was provided for evaluating the proliferation assessments that governments had made in the past.

A number of possible factors have been cited to explain Libya's decision to renounce NBC weapons and medium- and long-range missiles. Bush Administration officials have portrayed it as a vindication of the administration's robust approach to combating the spread of NBC weapons. However, there has been disagreement over whether—or to what extent—the administration's counter-proliferation strategy should be credited for Libya's decision. Some observers have described it as part of the Qadhafi regime's long-term diplomatic efforts to overcome two decades of political and economic isolation. Until 2004 Libya had been subjected to one of the most stringent of all UN sanctions regimes linked to its involvement in a number of violent incidents during the 1980s, for which it subsequently admitted at least partial responsibility.

Before 2003–2004, public information about Libya's biological weapon- and nuclear weapon-related activities did not reflect the actual situation, while information regarding the country's missile programme and, to a lesser extent, its chemical weapon (CW) programme was more accurate. Until recently, most authoritative or official information regarding suspected Libyan NBC weapon and missile programmes was contained in status-of-proliferation reports and statements issued by the USA and other states. Some information was also released as a consequence of criminal proceedings against individuals and companies which had violated the sanctions regime.

Libya has a modest civil nuclear infrastructure, centred on the Tajura Nuclear Research Centre (TNRC) near Tripoli. The TNRC is the site of a 10-megawatt (MW) research reactor that was

completed with Soviet assistance in 1981 and placed under International Atomic Energy Agency (IAEA) safeguards.

Libya received considerable foreign assistance to procure sensitive nuclear materials, technologies and components. Much of this assistance was provided by a sophisticated clandestine network run by Abdul Qadeer Khan, characterized by some as the 'father' of Pakistan's nuclear weapon programme. Beginning in 1997, the Khan network supplied Libya with centrifuges and related components for an undeclared uranium-enrichment programme. It also gave Libya documentation related to nuclear weapon design. However, the relatively low technical absorption capacity of Libya's scientific–industrial base meant that these 'short cuts' did not bring Tripoli appreciably closer to achieving a nuclear weapon capability.

During the trilateral process, no concrete evidence of an existing biological weapon programme was uncovered. The UK and the USA reportedly hold the view that certain agricultural and pharmaceutical facilities 'were established with biological weapons also in mind'.

Libya declared 3563 empty CW air bombs, 23.62 tonnes of sulphur mustard and more than 3000 tonnes of CW precursors. Libya stated that it had never transferred CW and declared that it had an inactivated CW production facility at Rabta and two CW storage facilities.

The bulk of Libya's ballistic missile inventory consisted of ageing FROG and Scud-B missiles that had been imported from the Soviet Union. Libya's missile development was hampered by the imposition of UN sanctions between 1992 and 1999, which restricted the flow of ballistic missile technology. The country reportedly had some success in circumventing sanctions and obtaining missile-related components and technology from companies in China, India and the former Yugoslavia. In the 1990s, Libya also maintained cooperation with Iran in developing missile technology and components. It does not appear that Libya had an active programme under way to develop a missile delivery system for nuclear warheads.

In September 2004 the USA announced that its verification of the dismantling of Libya's NBC weapon programmes, including 'MTCR-class missiles', was 'essentially complete'.

15. Conventional arms control

Zdzislaw Lachowski and Pál Dunay

The year 2004 marked the fifth anniversary of the decisions taken by the participating states of the Organization for Security and Co-operation in Europe (OSCE) at the 1999 OSCE Istanbul Summit on 'hard' conventional arms control in Europe. Regrettably, the process remained deadlocked. Seven new members were admitted to NATO in 2004. This increased Russia's concerns about the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty), which are related to the fact that Russia considers itself to be at a growing security disadvantage. The 1999 Agreement on Adaptation of the CFE Treaty did not enter into force because of the refusal of the NATO members and other states to ratify it in the face of Russia's non-compliance with some of its so-called 'Istanbul commitments' related to military pullouts from Georgia and Moldova.

The prolonged crisis over the adapted CFE Treaty has had a corrosive influence on the political atmosphere and the prospects for a pan-European arms control regime. At the end of 2004 the two main actors on the European scene, NATO and Russia, continued to stick to their unyielding standpoints. Nevertheless, the conventional 'hard' arms control regime successfully weathered the 2004 wave of NATO enlargement and the associated problem of a legal CFE 'black hole' along the new NATO–Russia border (the Baltic states are not covered by the treaty). The Russian Federation made the conciliatory gesture of ratifying the Agreement on Adaptation, hoping to increase pressure on NATO to do the same. Meanwhile, new efforts were made by Georgia and Moldova to resolve their 'frozen conflicts' where Russia plays a pivotal role. Increasing difficulties stemming from the constraints that the outdated CFE Treaty place on NATO's operational flexibility might also contribute to a Western review of the Agreement on Adaptation issue.

In 2004 regional arms control developed and functioned smoothly. Progress made allowed the OSCE to suspend the operation of the Agreement on Confidence- and Security-Building Measures in Bosnia and Herzegovina from September 2004. The OSCE participating states continued to focus on adjusting and further developing certain norm- and standard-setting measures (NSSMs) in order to better respond to the risks and challenges that face Europe and its

neighbours. The evolution of European confidence- and security-building measures (CSBMs) and NSSMs is currently directed at: sharing these accomplishments with adjacent regions and regions outside the OSCE area; developing measures to ensure stricter controls on small arms and light weapons, surplus ammunition, landmines, and the like; and further regional applications. Regional CSBMs that focus on security and military activities in the vicinity of borders, as well as other measures, could be usefully applied to deadlocked crisis situations.

Croatia and Slovenia ratified the 1992 Treaty on Open Skies in 2004. The prospects for this treaty regime have regional and possible non-military dimensions. The treaty's review conference in February 2005 demonstrated that many states parties value the achievements of this aspect of European arms control and wish to maintain its relevance. An increase in the number of parties and extension of the Open Skies regime to countries in potential conflict zones in the Balkans and the eastern part of Europe would help to promote that goal.

The problem of inhumane weapons also continues to engage the international community. In 2004 the major humanitarian and military security frameworks continued to gain support and importance, thereby helping to reduce the scourge of mines worldwide, although the dilemma remains of choosing between a total ban and measures of restraint in the application of such weapons.

16. International non-proliferation and disarmament assistance

Ian Anthony and Vitaly Fedchenko

As part of the international anti-proliferation effort, a growing number of countries offer practical help to other countries in order to secure or eliminate nuclear, biological and chemical (NBC) weapons, the missile delivery systems for such weapons and capacities that might contribute to NBC weapon programmes. The provision of international non-proliferation and disarmament assistance (INDA) is steadily evolving from an emergency programme intended to manage the extraordinary circumstances surrounding the break-up of the Soviet Union to a broader international programme involving new donor states, new recipient states and new types of activity.

Most INDA activities have been carried out in Russia—reflecting the scale of the arsenals, infrastructure and knowledge base developed during the cold war. International non-proliferation and disarmament assistance continues to be a critical element in helping Russia to implement nuclear weapon- and chemical weapon-related arms control and disarmament obligations. The USA and Russia have developed a number of important bilateral programmes for implementing assistance projects. While this bilateral Russian–US cooperation is the most important, other countries, such as Canada, Germany, Japan, Norway and the UK, also make an important contribution.

In addition, INDA is increasingly establishing itself as a significant element of the wider anti-proliferation effort. The efforts to secure and dispose of proliferation relevant items (including materials and equipment) also reduces the risk that such items could be acquired by non-state actors and used to carry out acts of catastrophic terrorism. The geographic and functional scope of assistance is expanding and this expansion is likely to continue for the foreseeable future. At present, the most important initiatives continue to be bilateral. However, some of the programmes currently being evaluated—such as the development of a comprehensive approach to securing powerful radiological sources—are too costly and complicated to be undertaken on a bilateral basis. As new countries become engaged in the overall effort, questions continue to arise about how the delivery of assistance can be organized, financed and coordinated in the most effective manner.

The relationship between bilateral efforts, informal coordination mechanisms and the activities of international organizations, in particular the International Atomic Energy Agency, is continuing to develop in this field.

Among the mechanisms used to manage and organize assistance efforts, several particularly important initiatives can be identified. Since their summit meeting in Kananaskis, Canada, in 2002 the Group of Eight (G8) industrialized nations have been engaged in a sustained manner in organizing non-proliferation and disarmament assistance. These activities were re-designed in 2004. The EU, including its member states at the national level, is seeking to become a more coherent and effective INDA provider as part of a wider effort to further develop and implement the EU Strategy Against the Proliferation of Weapons of Mass Destruction adopted in December 2003.

While external contributions play an important role in helping Russia to manage the consequences of the massive militarization of its economy and society during the cold war, the most critical factor in defining and carrying out related projects is the programme of actions undertaken by the Russian Government and entities under its control. The reorganization of the Russian Government by President of the Russian Federation Vladimir Putin in 2004 included important changes to organizations that play a critical role in implementing INDA projects.

The anticipated expansion of the geographic and functional scope of INDA may bring forward the ‘moment of truth’ for a number of long-standing projects, such as Plutonium disposition and scientist redirection projects, whose non-proliferation significance is clear but which have so far proved impossible to implement.

17. Transfer controls

Ian Anthony and Sibylle Bauer

The states that participate in informal multilateral groups to enhance the effectiveness of their national arms export controls continued to acknowledge that additional efforts are needed to combat and, if possible, reverse the proliferation of nuclear, biological and chemical (NBC) weapons and their delivery systems. In 2004 evidence continued to accumulate that more countries recognize the strong self-interest in maintaining modern and effective national transfer controls. The failure of states to put in place modern and effective export controls was a factor that contributed to the development of Iraqi weapon programmes in the past. Uncertainty about the status of certain of these weapon programmes became a critical factor contributing to the crisis that led to war in Iraq.

Concern about the emergence of new suppliers of technologies that are relevant to the development or production of NBC weapons was heightened by the public disclosure of the activities of a network of 'knowledgeable individuals' led by Pakistani nuclear scientist Abdul Qadeer Khan, which had been working for more than a decade to supply weapon-relevant materials and technology to Iran, Libya and North Korea. Khan's global network of collaborators included a number of participants located in and operating from countries that participate in the Nuclear Suppliers Group.

In Europe, the EU member states reviewed the national implementation of the regulation that forms a common legal basis for controlling exports of dual-use items from the EU. This 'peer review' produced specific recommendations that the European Commission and EU member states should now take into account when implementing the dual-use regulation and considering amendments to the regulation and national export control systems.

Strengthening the national export controls of states is an important aspect of enhancing the wider non-proliferation regime. In 2004 the need for well-funded and targeted assistance programmes to help countries put in place modern and effective export controls emerged as a theme in the EU, the Group of Eight (G8) industrialized nations, the UN and the Wassenaar Arrangement. There is a growing concern to improve the coordination of assistance programmes between

regimes, organizations and countries. For the EU, increasing effectiveness will require better coordination between the parts of the Union which are responsible for different functions (e.g., EU border control, dual-use export control and external relations).

The EU has also reviewed its 1998 Code of Conduct on Arms Exports, a political undertaking that has become an important instrument for increasing transparency and harmonizing the criteria applied by member states when making national assessments of prospective arms exports. As a result of the review, changes will be made to the Code of Conduct in 2005.

One way to enhance the consistency of export controls for dual-use and defence-related items across the EU would be to develop structures to pool technical capacities and intelligence on end-use, and to establish joint training of licensing and enforcement officers in the EU. Such a training capacity could also be used for outreach activities and in assistance programmes for candidate countries, aspiring applicant countries, the European Neighbourhood Policy countries and beyond.

Appendix 17A, by Matthew Schroeder and Rachel Stohl, analyses US export controls.—The USA is the world's largest arms exporter and has great influence over the global arms trade. Arms transfers from the USA are governed by a combination of legislation, regulations and presidential directives and are administered by the departments of State and Defense, which are also responsible for end-use monitoring. Oversight is undertaken by the US Congress and the US Government Accountability Office (GAO). A January 2004 GAO report criticized the State Department's end-use monitoring of cruise missile and unmanned air vehicle exports. Recent controversies include a proposal to waive licence requirements for certain British and Australian companies and the role of arms sales in the 'international war on terrorism'.

18. The Proliferation Security Initiative: international law aspects of the Statement of Interdiction Principles

Christer Ahlström

In the aftermath of the terrorist attacks against the USA on 11 September 2001, and the subsequent focus on proliferation of weapons of mass destruction (WMD) to state as well as non-state actors, there has been a growing consensus on the need to take more robust measures against proliferators. One such measure is the interception of goods and technologies in transit. In particular, the USA has stressed that effective interception is a critical part of its strategy to combat weapons of mass destruction and their delivery systems.

However, the *So San* incident in 2002 demonstrated that international law places important limits on interception activities. The incident gave an important impetus for US authorities to formulate a policy response that would pave the way for more robust action against proliferators in future. In May 2003 US President George W. Bush announced a new multilateral initiative focusing on law enforcement cooperation for the interception and seizure of illegal weapon and missile technologies. This initiative became known as the Proliferation Security Initiative (PSI). Thus far, only a limited number of states participate in the 'core group' of this initiative, while a significant number of states have expressed support for the principles that have been developed within its framework.

The PSI developed quite rapidly in 2003 and 2004. The PSI's main output thus far is the Statement of Interdiction Principles, which establishes important limitations on states' authority to exercise enforcement jurisdiction against vessels suspected of carrying WMD and related items. The majority of the commitments contained in the statement comply with existing international law. Nevertheless, the development of the PSI has brought to the fore the challenge of reconciling two interests that, at least *prima facie*, appear difficult to reconcile. Taking robust and creative steps to prevent the proliferation of WMD would imply changes to and new developments of the existing rules and principles of international law. However, most governments seem to prefer to take these measures within existing domestic and international legal frameworks, which might not

support overly robust and creative steps. The process of developing the PSI seems to have resulted in a change in emphasis within the initiative—from a recognition of the need to change the law to a focus on what actions might legally be taken under existing international and domestic legislation.

The PSI participating states have tried to acquire legal authority by means of UN Security Council resolutions or amendments to conventions that do not directly deal with the fundamental rules and principles of the law of the sea. In order to gain legitimacy, however, the process needs to be more inclusive with regard to participation. Furthermore, the process should directly focus on the most relevant treaty—the UN Convention on the Law of the Sea.

Appendix 18A contains the Statement of Interdiction Principles.

Annex A, by **Nenne Bodell**, summarizes the major arms control and disarmament agreements and lists the states parties as of 1 January 2005.

Annex B, by **Nenne Bodell**, is a chronology of the major arms control and security-related events of 2004.
