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# SIPRI Yearbook 2004

## Armaments, Disarmament and International Security

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**'The USA proved that it can destroy its enemies, but it proved unable to compel its friends.'**

**'Human beings cannot be made free, let alone happy, by placing them in a protective security cage. The already very difficult task of achieving democratic transformation in non-Western societies will not be helped if the West is seen as slowly consuming its own stock of inherited liberties, while trying to impose freedom (a contradiction in terms) on others.'**

*From the Introduction*

*SIPRI Yearbook 2004* may be obtained from September 2004 through all the main bookshops or from Oxford University Press.

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# HIGHLIGHTS from the SIPRI YEARBOOK 2004

## Security and conflicts

- During the first years of the 21st century, at least, the northern hemisphere's family of democratic states does not seem to have found the formula for becoming more inclusive and more united.
- The impact of the Iraq war on the proliferation of weapons of mass destruction and terrorism is difficult to assess. Potential proliferators may draw the conclusion that the costs and risks of acquiring WMD have increased significantly, but they may also conclude that the only way to prevent themselves from becoming the victims of regime change is to develop a credible deterrent. Similarly, the Iraq war may have exacerbated the problem of international terrorism by creating a new frontline in Iraq and fuelling Arab and Islamic resentment. Conversely, by triggering new debate on the political future of the greater Middle East it may also have created a chance to address the deeper causes of radical Islamic terrorism.
- In a globalized world, the consequences of internal conflict are no longer confined to the immediate neighbourhood of the warring state. External engagement is, to some extent, inevitable. The question, therefore, is one of what type of engagement and with what instruments.
- Notwithstanding the bruising inflicted on the concept of UN primacy in peace and security in 2003, the United Nations remains very much in the business of peace operations and, in particular, the demanding field of post-conflict peace-building. It also has reason to claim a special role and responsibility in setting out the principles for intervention and coordinating international peace-building efforts. In so doing, it asserts a legitimate right to involvement in how that peace is made.
- Although the delivery of justice after conflict as an essential element of post-conflict peace-building has emerged as an internationally accepted norm, there is still a debate about how, and in what form, justice should be administered. Increasingly, however, the concept of an interwoven patchwork of global, international, national and grassroots judicial instruments, rather than a single monolithic approach, to more effectively reduce the 'impunity gap' is becoming more widely accepted internationally.
- Multilateralism is now not only entrenched in China's new 'security concept', but also a proven technique for China to enhance its own security and temper US influence while soothing smaller neighbours' concerns.
- With the generally positive outputs emerging from security sector transformation processes, the next decade may well be the one in which Africa establishes security institutions and security arrangements that are genuinely accountable and capable in their professional predisposition.
- Aid from the North Atlantic Treaty Organization and the European Union, and the spur of ultimate accession to these organizations, provide the outside world's main leverage for reform in the Western Balkans. This situation has advantages but also runs the risk of making progress in security sector reform over-dependent on outside support and pressure, and thus insufficiently grounded domestically.

## **Military spending and armaments**

- Part of the response to asymmetric or other threats depends on the exploitation of relevant skills in support of research, development and production of military technology; on the efficient organization of such activities at the national and multinational levels; and on sharing the outputs with friendly states and allies.
- World military spending in 2003 increased by about 11 per cent in real terms. This is a remarkable rate of increase, even more so given that it was preceded by an increase of 6.5 per cent in 2002. Over two years world military spending increased by 18 per cent in real terms, to reach \$956 billion (in current dollars) in 2003.
- In terms of value, the overwhelming share of the production of military goods and services takes place in China, Europe, Russia and the United States.
- Russia and the USA remained the major arms suppliers in 2003. Their main recipients were China and India (in the case of Russia) and Taiwan, Egypt, the UK, Greece, Turkey and Japan (in the case of the USA). A continued increase in US arms transfers will influence the global trend. However, domestic factors indicate that the level of Russian arms transfers is unlikely to remain high for very much longer.
- The free access to genetic sequence data for the human genome and a large number of other genomes, including those for pathogenic micro-organisms, is a great scientific resource, but it could pose a significant threat if misused.

## **Non-proliferation, arms control and disarmament**

- Multilateral arms control treaty regimes did not move any closer to agreement on how to identify violations of existing treaties and agreements or how to respond when such violations are detected.
- Some experts have cited the North Korean and Iranian nuclear programmes as evidence that Article IV of the 1968 Non-Proliferation Treaty creates a fundamental weakness in the regime, in that it allows states parties seeking to acquire nuclear weapons to legally put in place the fuel cycle facilities required to manufacture these weapons under the cover of civil nuclear energy programmes.
- The decision by Libya to demonstrate verifiably that it no longer possesses WMD suggests that, in some cases, maintaining a policy of ambiguity over certain weapon programmes is less tenable in the current security environment. The Libyan decision also suggests that ad hoc coalitions of like-minded states acting on specific issues of concern to meet perceived threats can be effective under certain circumstances.
- Effective export control in the majority of new EU member states is undermined by their lack of participation in one or more of the information exchanges that take place in the export control cooperation arrangements. Full participation by all EU member states in all regimes will be a critical issue in 2004.
- The withdrawals by the North Korean and US Governments, from the NPT and the ABM Treaty, respectively, are unprecedented in the modern history of international arms control and raise several fundamental questions regarding the role usually attached to legally binding agreements as robust tools for arms control.

# SIPRI Yearbook 2004

## Armaments, Disarmament and International Security

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# SUMMARIES from the SIPRI YEARBOOK 2004

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## Introduction

**Alyson J. K. Bailes**

The military action taken by the USA and its coalition partners in Iraq in March–April 2003, and its aftermath, dominated the security debate in 2003 and impinged on virtually every field of security policy. The successful, low-cost occupation of a nation of 23 million people displayed the USA's unique strength: the aftermath showed more about its limitations and about the limited meaning of military power in general. The USA was able to win a war in Iraq but not to restore peaceful conditions, nor provide a convincing vision of the country's future. It overthrew an enemy, but the limited nature of its supporting coalition—and its inability to secure a United Nations mandate on the wished-for terms—betrayed its inability to coerce its friends. Indeed, the lessons drawn by others seem to be provoking a closing of ranks in many regional groupings which, if not exactly anti-US, do set limits to any one-power 'hegemony'.

The supposed weapons of mass destruction (WMD) threat from Iraq seemed the strongest foundation for the USA and its coalition partners to launch their attack, but it subsequently crumbled. Perhaps luckily, evidence of past and present WMD problems in (notably) Iran, Libya and North Korea was strong enough to maintain the momentum of international cooperation against the proliferation menace—and many states were motivated to work for less violent solutions. A boost has been given to multi-functional, full-cycle arms and technology control strategies adapted to new globalized conditions.

The Euro-Atlantic community was sorely divided by Iraq, but the heart-searching this prompted suggests that the Western 'family' is still 'family', no matter how dysfunctional. Determined efforts were made from mid-year onwards to restore a sense of unity and find new purpose in key institutions such as the United Nations (with a fundamental review of security challenges and principles commissioned by the Secretary-General), NATO (with a new

focus on global military operations, initially in Afghanistan), and the European Union (with new strategy documents, innovations in European defence cooperation, and proposed institutional changes for stronger leadership). 'Reinstitutionalization' has outweighed 'de-institutionalization' in the balance up to now.

Considered as a conflict, Iraq underlined that any intervention—even non-military—is a gamble for high stakes. Improvement of national and international performance on follow-through and peace-building is long overdue. The impact on Iraq's region was limited in terms of conflict escalation but lacking in positive results for 'Arab democracy'. New fronts and incentives for terrorism outweighed any deterrent effect that might have been hoped for.

The performance of new military equipment and tactics in Iraq will encourage imitators in some parts of the world and a search for new 'asymmetric' responses in others. The concomitant boost in US military expenditure has aggravated both the problems of budgetary and trade imbalance for the USA itself, and the uncertainties for the whole world economy.

The severe acute respiratory syndrome (SARS) epidemic in 2003 was a reminder that the world is threatened by other dangers—including, for example, climate change and environmental collapse—for which it has yet to find either united policies or adequate resources. More insidious damage was done in the year to human rights and freedoms, without which security policies designed to protect and spread Western-style values risk losing both credibility and effect.

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## 1. Euro-Atlantic institutions and relationships

**Pál Dunay and Zdzisław Lachowski**

The policy agendas of the Euro-Atlantic community, wielding as it does enormous weight—political, economic, military and other—in world relations, will continue to dominate the international system at least in the short to medium term.

The year 2003 was one of extremes for Euro-Atlantic relations, moving between traumatic divisions and efforts to restore unity. In the first months of the year events were driven by the national policy priorities of the United States, on the one hand, and the diverging reactions of major Western partners and Russia, on the other. Later in the year, more constructive use was made of organizations such as the North Atlantic Treaty Organization and the European Union, even if the political reconciliations opening the way for this were mostly made elsewhere. Programmed changes, not related to Iraq, such as NATO's continuing transformation from a territorial defence organization, negotiations on the draft Treaty establishing a Constitution for Europe and the countdown to both organizations' enlargement, continued largely as planned.

In 2003 the Bush Administration's declared security policy moved to the implementation phase. The lessons of Iraq did not directly alter its doctrines and policy emphases. However, by the end of the year, the balance and style of its activities in pursuit of them had shifted notably towards more diplomatic, multilateral and even international legal approaches. Many shortcomings in homeland security were also remedied. In its international non-proliferation efforts, the USA placed the emphasis on launching new programmes designed to meet its national priorities (such as the Proliferation Security Initiative and a UN draft resolution to criminalize the proliferation of weapons of mass destruction).

Developments in 2003 put NATO to an existential test as a security actor. Its leading member, the USA, appeared to use it as a military 'toolbox' for building 'coalitions of the willing' in time of need—rather than a political forum or a vital partner. The attack on Iraq and the disputes during its build-up precipitated a profound rift between NATO members, which bred new doubts about the organization's viability. Among NATO's efforts to maintain its relevance and seek a new role, it was the initiatives launched outside its treaty area of activity that gave hope for its revitalization. In the

last months of the year there were signs of recovery as the USA adopted a more positive attitude to the organization. NATO's problems did not discernibly affect progress in the other areas of its adaptation to the new security environment—enlargement and the transformation of its forces and structures.

The EU is also facing the challenge of redefining its role and place on many fronts, ranging from its traditional competences to new ones such as a shared foreign policy and security identity and military strength. The draft Treaty under discussion since 2002 is designed to make the EU system more effective, more accountable (democratic) and more comprehensible to its citizens, alongside the enlargement which took effect from 1 May 2004. The Iraq war caused new divergences which added to existing concerns, fears and uncertainties about leadership and future commitments, power sharing and the shape of the organization. It proved impossible to adopt the new Constitution on schedule in December. However, the effort to build a strategic personality produced a chance to operationalize the EU's Common Foreign and Security Policy, while the common initiatives put forward with regard to the European Security and Defence Policy seemed to offer promise of a fresh boost to this project.

West–West dynamics dominated the security scene in 2003—to such a degree that even Russia seemed to spend most of its time deciding where to place itself within the Western spectrum. The Organization for Security and Co-operation in Europe, seeking to find its relevance and utility against the background of the NATO and EU enlargements, was dealt a blow at the end of the year by the rising tension between the West and President Putin's Russia over the latter's southern perimeter.

That the Western Balkan region is still not fully immunized against ethnic hatred and terror was painfully brought home to the international community by the outbreak of violence in Kosovo in March 2004.

During the first years of the 21st century, at least, the northern hemisphere's family of democratic states does not seem to have found the formula for becoming at once more inclusive and more united.

## 2. The Iraq war: the enduring controversies and challenges

Andrew Cottey

Operation Iraqi Freedom began early on 20 March 2003. On 9 April US forces took control of central Baghdad and the Iraq Government fell. Major combat operations ended formally on 1 May 2003, although by 14 April—when US forces gained control of Tikrit, the last Iraqi city to exhibit organized resistance—coalition forces had occupied all of Iraq. As of May 2004 the Coalition Provisional Authority (CPA) was still in Iraq, facing resistance from various Iraqi forces, while the role of the USA and the wider international community in rebuilding the country remained deeply contentious.

The 2003 Iraq war was, and is likely to remain, one of the most controversial conflicts of modern times. The decision by the world's only superpower to go to war in Iraq without explicit authorization from the United Nations Security Council provoked deep divisions within the international community and within states. Controversy surrounded the public justification for the war, in particular the degree and immediacy of the threat posed by Iraq's nuclear, biological and chemical (NBC) weapon programmes and whether the use of force was the most effective approach to dealing with that threat. The war was also controversial because it raised deeper issues of principle and precedent, including whether and under what circumstances the use of force may be a legitimate and effective response to the proliferation of NBC weapons; whether and under what circumstances the removal by force of governments or leaders—'regime change'—may be a legitimate and wise policy; the role of the UN Security Council in arriving at decisions of this kind given the inherent limitations of that body; and the role of the USA in world affairs given its overwhelming power.

Supporters of the war can claim that one of the world's cruellest regimes has been brought to an end, that the possibility that that regime might develop a strategically threatening WMD arsenal or supply such weapons to terrorists has been removed, and that new prospects for political change in the Middle East have been generated. Critics can argue that the extent of the WMD threat posed by Iraq—the primary *casus belli*—was greatly exaggerated; that the costs of the war in terms of lives lost, economic outlays and the destabilization of Iraq have been high; and that the fabric of international order has been damaged. The ambiguous outcome of the war—the suc-

cessful overthrow of Saddam Hussein's regime, the failure to discover evidence of WMD and the serious ongoing post-war problems—suggests that neither argument has been fully vindicated.

The Iraq war and the Bush Administration's formalization of the doctrine of pre-emptive warfare in its 2002 National Security Strategy provoked much debate about whether the USA would engage in similar operations elsewhere in the world—with Iran, North Korea and Syria seen as the most likely targets for US-imposed regime change. The rapid and overwhelming victory of the USA in March–April 2003 appeared to vindicate the view that US military superiority had revolutionized the nature of warfare and to suggest that the Iraq war might be a precedent for similar US actions elsewhere. The subsequent post-war problems faced by the USA, however, showed that the challenges of post-war stabilization may be greater than those of war itself; that the long-term costs, direct and indirect, of regime change may be very great indeed; and that the USA is likely to need wider international support to achieve its objectives.

The USA could yet succeed in building a democratic Iraq, defeating those determined to prevent such an outcome and making Iraq a catalyst for democratic change elsewhere in the region. The ongoing violence in Iraq and the continuing disputes between the country's political, religious and ethnic groups could, however, also result in continuing instability within Iraq; the country becoming a failed state or even descending into civil war; and the spill-over of instability into neighbouring states.

The impact of the Iraq war on WMD proliferation and terrorism is also difficult to assess. Potential proliferators may draw the conclusion that the costs and risks of acquiring WMD have increased significantly, but they may also conclude that the only way to prevent themselves from becoming the victims of regime change is to develop a credible deterrent.

Similarly, the Iraq war may have exacerbated the problem of international terrorism by creating a new frontline in Iraq and by fuelling Arab and Islamic resentment. Conversely, by triggering new debate on the political future of the greater Middle East it may also have created a chance to address the deeper causes of radical Islamic terrorism.

### 3. Major armed conflicts

#### Renata Dwan and Micaela Gustavsson

In 2003 there were 19 major armed conflicts in 18 locations worldwide, the lowest number for the post-cold war period with the exception of 1997, when 18 such conflicts were registered. Only two of the 19 conflicts were fought between states: the conflict between Iraq and the multinational coalition led by the United States and the United Kingdom and the long-standing conflict between India and Pakistan over Kashmir. Four of the 19 conflicts were in Africa and eight in Asia.

The principal source of major armed conflict in contemporary politics remains intra-state. The persistence of intra-state wars, and their resistance to quick solutions, was amply reflected in 2003. Long-standing conflicts in Colombia and Israel continued, despite the introduction of more offensive military strategies by the government parties in each country. While a more aggressive military stance thwarted opposition attacks and may have contributed to the reduction in fatalities in Colombia and Israel in 2003, it severely hampered efforts to facilitate progress toward peace in both.

The volatility of individual intra-state conflicts was sharply brought to the fore in 2003. The potential for sudden and rapid escalation of intensity was evident in conflicts such as Burundi, Côte d'Ivoire, Indonesia, Liberia and the Philippines.

This was also demonstrated in Afghanistan, a conflict that resists neat classification as 'inter' or 'intra-state'. Taliban fighters regrouping and emerging out of Pakistan were increasingly active in 2003 against the US-led coalition in south-eastern Afghanistan. While the USA and its allies continued its campaign to root out al-Qaeda forces, the Afghan Transitional Authority, under President Hamid Karzai, sought to exert authority over Afghanistan's powerful warlords and prepare the country for national elections in September 2004. The current international focus on the threat of terrorism continues to affect the conduct of intra-state conflicts and, in cases such as Indonesia and the Philippines, is directly impacting on the strategies, intensity and course of these conflicts.

The year 2003 demonstrated that intra-state conflicts can be brought to an end only through sustained and comprehensive external engagement. Outside actors cannot enforce peace on a state, as cases as diverse as Côte d'Ivoire, Iraq and Sri Lanka demonstrated. However, external assistance, mediation and support is vital to help bring warring parties to a negotiated end to conflict.

Peace agreements in Liberia and Sudan in 2003 were forceful reminders of this.

• **Appendix 3A**, by **Mikael Eriksson** and **Peter Wallensteen**, *presents data on the patterns of major armed conflicts in the period 1990–2003.*

• **Appendix 3B** *explains the definitions, sources and methods for the data collection presented in appendix 3A.*

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#### **4. Multilateral peace missions**

**Renata Dwan and Sharon Wiharta**

Fourteen multilateral peace missions were launched in 2003—the highest number of new missions initiated in a single year since the end of the cold war. The growing demand for peace operations reflects the trend of a steady decline in the number of major armed conflicts since 1998, but also serves to highlight the fragility of peace processes as demonstrated in Burundi, Côte d'Ivoire and Liberia.

The increasing prevalence of regional organizations and multinational coalitions in multilateral peace missions and the diversity of their engagement were again evident. Regional actors accounted for 11 of the 14 new peace operations established in 2003. The scope of their involvement, particularly their linkages with the UN, ranged from serving as short-term holding mechanisms; operations that follow on from UN operations; participation in a multi-dimensional UN operation; and complementary deployment to operations that receive UN endorsement but are outside of UN command and control. The complex issues of legitimacy, transparency and coordination between the UN and regional organizations pose central and challenging questions to be addressed in 2004 by the UN High-Level Panel on Threats, Challenges and Change.

One of the most striking developments in the context of regional organizations was the initiation of out-of-area operations by the European Union and the North Atlantic Treaty Organization in the Democratic Republic of the Congo (DRC) and Afghanistan, respectively.

Events in 2003 revitalized the discussion of African regional peacekeeping capabilities. Although the African Union, the Economic Community of West African States (ECOWAS) and the Communauté Economique et Monétaire d'Afrique Centrale (CEMAC) conducted four new missions, in Burundi, Côte d'Ivoire, Liberia and the Central African Republic—these were relatively small and time-limited operations. They demonstrate that African organizations continue to grapple with resource constraints (both manpower and financial) and suggest that increased political will by African organizations to develop their institutional capacities in crisis management should be matched by international support.

Increasing attacks against UN peacekeepers and humanitarian aid workers in Iraq, Afghanistan, the DRC and elsewhere in 2003 brought the issues

of the security of personnel in peace operations and the complex relationship between military intervention forces and humanitarian aid actors to the fore. This has reignited a debate within the humanitarian and development communities on the merits and desirability of close links between them and military and peacekeeping actors.

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## 5. Post-conflict justice: developments in international courts

### Sharon Wiharta

The nexus between justice and peace has grown stronger in recent years. Prompted by the experiences in Argentina, the Western Balkans, Rwanda and South Africa, discussions have focused on the necessity of holding accountable those responsible for committing atrocities and grave crimes during armed conflicts to enable a more sustainable peace-building process. In 2003, several significant developments in formal institution building occurred in the sphere of post-conflict justice.

The International Criminal Court (ICC), established in July 2002, has moved from a paper court to a fully functioning one. All of the court's key staff—the judges, the Chief Prosecutor and the Deputy Prosecutor—were elected and, by the end of the year, they had identified the situations in the Ituri region of the Democratic Republic of the Congo and Uganda as the first two cases the court would hear. However, the progress of the ICC has been beset by continued opposition, particularly from the United States, which has maintained its policy of pursuing Bilateral Immunity Agreements with states parties to the Rome Statute and non-states parties alike, and implemented the American Service Members' Protection Act.

The Rome Statute can be seen to have established a system of international criminal law rather than simply a court. Several states have already begun to incorporate laws against crimes within the ICC's jurisdiction into domestic law. This will further embed the concept of non-impunity.

The creation of treaty-based 'hybrid' courts or second-generation courts—part international and part national—such as the Special Court for Sierra Leone and the Extraordinary Chambers for Cambodia were important developments in 2003. They underline the international community's acknowledgement that a partnership with domestic actors from the outset is essential to the peace-building process. However, the existence of the hybrid courts and the domestic Iraqi Special Tribunal brought to the fore the question of burden-sharing in the delivery of justice after conflict. The cases of Iraq and, to a lesser extent, Afghanistan illustrate that the international community is still divided as to which of the current models in place is the most appropriate. These examples also raise the question of who decides which model to apply where, and why.

Immediately after the US-led intervention in Iraq in 2003, members of the international community acknowledged that the atrocities committed during Saddam Hussein's regime should be dealt with, but could not agree on a suitable mechanism for legal redress. Various models were considered, ranging from a military tribunal to a hybrid court. In the end, a domestic tribunal with little international participation was chosen—largely because the main occupying power has an aversion to international courts. The establishment of the Iraqi Special Tribunal could arguably be seen as a reversion to a system based on victors' justice, which the international community has previously been anxious to move away from.

The financial viability of post-conflict justice is still to be addressed. The international community, particularly a select group of states, has spent over \$1 billion on international courts. With so many international courts now in place the question of the financial sustainability of maintaining them arises. Nor is further devolution to the local level a solution because, as in the case of Bosnia and Herzegovina, the costs still fall to the international community.

The debate about striking the delicate balance between resource constraints and symbolic justice that ensures optimum and appropriate levels of punishment is one that will continue for some time.

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## 6. China's new security multilateralism and its implications for the Asia-Pacific region

### Bates Gill

The People's Republic of China has engaged more fully in, and even taken initiatives for, regional and global multilateral security processes since the late 1980s. What are China's motives, and how complete and durable is this reversal of an earlier strategy?

Regionally, China was at first cautious about giving a security dimension to the ASEAN Regional Forum (ARF), but by 1997 Beijing came to see that the group could help it to balance its neighbours, enhance stability and find advantageous multilateral solutions. China has welcomed ARF collaboration on various technical military issues and is now more open to addressing conflict prevention within the ARF framework. In 1996, China co-launched the 'Shanghai process' for cooperation and confidence building in Central Asia with Russia and several newly independent states of that region. Institutionalized as the Shanghai Cooperation Organization (SCO) in 2001 and now with six members (China, Kazakhstan, Kyrgyzstan, Russia, Tajikistan and Uzbekistan), this grouping has made progress in military confidence-building measures and cooperation against 'new threats', and has held at least two multilateral military exercises.

China has also fostered multilateral approaches to specific security issues in its region, such as the concern over a North Korean nuclear weapon programme. China has hosted a growing series of 'six-party' talks on this issue, including Japan, Russia, and the USA. Besides the ARF, China has also engaged in bilateral talks with the ASEAN group leading *inter alia*—in 2002—to a declaration aimed at reducing tension over conflicting territorial claims to islands in the South China Sea. China has sought formal dialogues with both NATO and the EU and offered to sponsor conflict prevention efforts elsewhere, for example, between India and Pakistan.

Chinese armed forces have engaged since the mid-1990s in joint international exercises, not only in the SCO framework, but also, for example, with Hong Kong, India and Pakistan. China has exchanged military observers and ship visits with neighbouring and more distant powers. It has been a constant contributor to UN military peacekeeping missions since 1992 (in Cambodia) and more recently contributed to a police mission in East

Timor (Timor Leste). It currently contributes to about half of all UN missions worldwide and is the 27th largest national contributor.

Notwithstanding progress in region-wide security relations, there remain important unresolved tensions in China's bilateral relations with Japan and in the special field of China-Taiwan relations. The China-USA bilateral relationship also has elements of tension, competition and fundamental strategic disagreement. For China, multilateralism is partly a means to ward off US hegemony, while the USA would be wary of China gaining influence through the growth of regional security communities.

Multilateralism is now not only entrenched in China's new 'security concept', but also a proven technique for China to enhance its own security and temper US influence while soothing smaller neighbours' concerns. China has every reason to pursue this approach, but the outcome—and impact on general security—still depends greatly on how well the ambivalent China-USA relationship and China's other remaining bilateral preoccupations can be handled.

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## 7. National defence reform and the African Union

**Rocky Williams**

Significant strides were made in the African security sector during 2003. At the political–strategic level certain conflicts edged closer to resolution, albeit falteringly, as demonstrated by the relative successes of the facilitated peace processes under way in Angola, Burundi, the Democratic Republic of the Congo (DRC), Liberia and Sudan.

Recently installed military governments, so long the bane of many developing countries, found themselves under immense pressure from the African Union (AU), various African sub-regional groupings and key states in their regions to disengage from the political process. The return to barracks by the armed forces of the Central African Republic, Côte d'Ivoire and Guinea-Bissau was primarily the result of this pressure.

A strategic shift is taking place away from the limited politics of diplomatic engagement to the creation of more robust African peacekeeping and intervention capabilities. Both the AU and certain sub-regional organizations, such as the Economic Community of West African States, the Intergovernmental Authority on Development and the Southern African Development Community, are beginning to fashion peace and security strategies and structures that envisage a substantially enhanced role for these bodies in the management and resolution of African conflicts.

An incrementally widening circle of national governments have initiated security sector reviews, White Paper processes and restructuring initiatives designed to enhance the professionalism of their security forces and their accountability to elected civil authorities. These initiatives are evident in countries as diverse as Ghana, Mozambique, Rwanda, Senegal, Sierra Leone, South Africa and Uganda. All these initiatives, national and regional, are responding to international donor pressure.

However, structural tensions continue to pervade African societies and their respective polities. The successful management of conflicts in Angola, Burundi, the DRC, Liberia, Rwanda and Sudan had been preceded and, in some cases, presaged by deep-seated political, economic, structural and, in certain instances, ethnic conflict that had its roots in the pre-colonial and colonial history of Africa.

There is no universal reconstruction template that can be applied to post-conflict societies. Whether restructuring of national armies, reduction of foreign debt, privatization of public enterprises or

reduction of poverty is prioritized as the key issue to be addressed, such goals can only be achieved by nationals of the country concerned based on the unique correlation of forces (physical and psychological) that pertains in that country at any given time.

While the institution of the AU, the New Partnership for Africa's Development (NEPAD), and the activation of the various sub-regional bodies represent a positive step forward in the direction of a practical pan-Africanism, it is also important to stress that immense challenges face their operationalization. Already, many African countries have been tardy about submitting themselves to the African Peer Review Process (South Africa and Ghana being the first countries to do so) and differences exist between Egypt and South Africa about in which of their respective countries the first Pan-African Parliament will be located.

Further challenges include the following: (a) building capacity at the national levels of government, without which sub-regional organizations will be rendered toothless; (b) ensuring that a synergy at both organizational and policy level exists between national, sub-regional and organizational bodies and that appropriate resources are identified for their different tasks; (c) avoiding the risk of undue competition and rivalry between the 'superpowers' of the continent (Algeria, Egypt, Nigeria and South Africa,) for the dominant positions in African organizations; (d) avoiding the danger of over-extending capabilities—both civil and military; and (e) resolving the enduring and perennial problem of initiating too wide a range of initiatives without having the resources, capacity and planning ability to complete them all.

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## 8. Security sector reform in the Western Balkans

Marina Caparini

The states of the Western Balkans region (and the province of Kosovo) face greater challenges in security sector reform (SSR) than the other post-Communist states of Central Europe. Recent conflict has left a legacy of material damage, ethnic division and bitterness, and refugee and war crimes issues. The presence of international forces and administrations—still executing many functions of normal state security—means that reform can only be completed hand in hand with re-localization of authority. Transnational ‘new threats’ are rife and national progress is tied up with regional factors to an unusual degree.

North Atlantic Treaty Organization and European Union aid, and the spur of ultimate accession to these institutions, provide the outside world’s main leverage for reform in the Western Balkans. This situation has advantages but also risks making progress in SSR over-dependent on outside support and pressure, and thus insufficiently grounded domestically.

Generic challenges common to the region are police reform (after the inflation and misuse of police forces during recent wars), and the strengthening and professionalization of border controls. Outside donors have also put (perhaps excessively) strong emphasis on anti-terrorism.

*Albania* is the most underdeveloped state in the region and a major source of human trafficking. Military and police reforms are handicapped by corruption and basic failings in democracy.

*Bosnia and Herzegovina* faces special challenges in military and intelligence reform because of the degree of control thus far delegated to its ethnically defined ‘entities’. Crucial reforms at the centre are being pushed through by the internationally appointed High Representative with support from NATO and the EU.

*Croatia* set up new military and security forces on independence and the main task now is to de-politicize them after their civil war experiences. As a credible candidate for NATO membership Croatia is increasingly gearing its defence reforms to standard NATO requirements.

*The Former Yugoslav Republic of Macedonia* (FYROM) is doing likewise in the military field, but has problems in creating internal security forces that will be equally representative of and respected by the Albanian ethnic minority.

The State Union of *Serbia and Montenegro* has been dogged by nationalist influences and made a late start on true defence reform, but is now bidding for Partnership for Peace membership. The current constitutional deal with the province of Montenegro was essentially EU-imposed and remains fragile. The strengthened position of nationalist parties after the latest elections gives cause for concern.

The open question of *Kosovo’s* ultimate status—which international actors insist can only be reviewed after internal progress—create an extra dimension of instability for the province and the entire region. Serious concerns remain over the safety of the Serb minority there. Although a new-style police force has been created, Kosovar armed forces remain more of a problem than a solution.

Throughout the region, the new reform agenda is an improvement on wartime conditions but the progress made is vulnerable to donor fatigue and is still hampered by imperfect international coordination. The outside world requires more time and patience to ensure that reforms not only give due place to democratic (e.g., parliamentary) institutions, but are achieved with democratic methods and adequate local ownership.

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## 9. Science- and technology-based military innovation: the United States and Europe

Björn Hagelin

Developments in international relations and military doctrines after the 11 September 2001 attacks on the United States and the subsequent wars in Afghanistan and Iraq have raised a number of issues related to the production, transfer and use of military technology. Part of the response to asymmetric or other threats depends on the exploitation of relevant skills in support of research, development and production; on the efficient organization of such activities at the national and multinational levels; and on sharing the outputs with friendly states and allies.

Military research and development (R&D) is the most expensive and basic phase in the creation of a new weapon platform. The 'revolution in military affairs', which some see as more of a constant evolution, is a process that today is identified with 'network-centric' military solutions, of which the war in Iraq in 2003 has been called the first operational test. The Iraq war effort benefited from the breakdown of the barrier between civil and military technology in the fields of communications, information technology and sensors.

There has been a shift in emphasis from traditional military R&D of defined weapon platforms towards greater military exploitation of science and technology (S&T). This is referred to as 'S&T-based military innovation', implying cooperation with as well as direct and long-term military support—through defence ministries, armed services and related research organizations—for basic research, applied research and exploratory technology development to achieve and support future military capabilities.

The USA and the UK are examples of nations with a national S&T-based military innovation policy. Despite their differences, both policies reflect the overlap between what are considered civil and military S&T areas. In the USA the implementation of S&T-based military innovation has been standard procedure at least since World War II. The UK is a major European military producer and the one where a new emphasis on S&T-based military innovation has been most clearly demonstrated.

In spite of the European Security and Defence Policy, there is no coordinated European S&T-based military innovation policy. This is partly because the inclusion of defence as an EU task is

only recent and partly because of the overlapping and unclear boundaries between the pillars of the organization. Another difficulty is national competition within Europe and attempts to preserve national skills rather than pool them. However, there are changes under way that might constitute steps towards the establishment of a more coordinated European, or even EU, S&T-based military innovation policy. Should such a policy be formulated, the enlargement of the EU in 2004 may bring both S&T benefits and competitive drawbacks. It is also open to question whether European S&T will be sufficient to meet EU capability ambitions. Exploiting foreign S&T for EU military innovation would enhance national S&T-based military innovation and multinational research programmes.

There are three long-term implications of a shift towards EU S&T-based military innovation: for data and transparency; for research ethics; and for finding a political balance between cooperation, competition and technology controls among both friends and foes. The data and transparency problem—a general problem in military and security studies—is further complicated by S&T-based military innovation. The ethical problem is basically an individual problem mainly for non-military actors involved in S&T-based military innovation. The neutral aspect of S&T and the many uncertainties with regard to its potential military use will involve difficult considerations for actors, especially if transparency remains low.

The problem of finding an acceptable political balance between the free sharing of S&T results and trying to gain commercial and technological advantages over military competitors—both friends and foes—while at the same time implementing technology transfer controls in order to prevent or delay military innovation by potential enemies is likely to become an increasingly delicate task.

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## 10. Military expenditure

**Elisabeth Sköns, Catalina Perdomo,  
Sam Perlo-Freeman and Petter Stålenheim**

World military spending in 2003 increased by about 11 per cent in real terms. This is a remarkable rate of increase, even more so given that it was preceded by an increase of 6.5 per cent in 2002. Over two years world military spending increased by 18 per cent in real terms, to reach \$956 billion (in current dollars) in 2003. High-income countries account for about 75 per cent of world military spending but only 16 per cent of world population. The combined military spending of these countries was slightly higher than the aggregate foreign debt of all low-income countries and 10 times higher than their combined levels of official development assistance in 2001. While it is not possible, because of a lack of data, to make the same comparison for 2003, it is clear that these gaps have widened owing to the stark rise in world military expenditure since 2001. Thus, there is a large gap between what countries are prepared to allocate for military means to provide security and maintain their global and regional power status, on the one hand, and to alleviate poverty and promote economic development, on the other.

The main reason for the increase in world military spending is the massive increase in the United States, which accounts for almost half of the world total. After a decade of reductions in military expenditure in the period 1987–98 and moderate increases in 1998–2001, the changes in US military doctrine and strategy after the terrorist attacks of 11 September 2001 unleashed huge increases in US military spending in 2002 and 2003. Much of the rise is accounted for by the large supplementary appropriations to cover the costs of the military operations in Afghanistan and Iraq and of anti-terrorist activities. In the absence of these appropriations, US military expenditure would still show a significant increase, but at a much slower rate, and world military spending would show a rise of 4 per cent rather than 11 per cent in 2003.

While military expenditure is also rising in several other major countries, these increases are much smaller, and there is little indication that the strong increase in US military spending is resulting in an equally strong tendency for other countries to follow suit. It is difficult to assess the importance of US influence relative to more basic drivers of military spending, such as changing threat perceptions, increased global responsibilities and force projection, and the dynamics of military technol-

ogy—in particular, since these factors are often strongly interlinked with the relevant countries' relations with the USA. While all countries accept that no nation is currently able to match the USA in military power, there are other types of response that could impact on their military spending.

A review of military expenditure trends in seven other major spenders shows that military expenditure has risen in most years of the five-year period 1999–2003 in all seven countries. India and Japan have raised their military spending in line with their GDP growth. Apart from the two years 2001 and 2002, the same is true for China. In France and the UK, the military burden declined slightly in recent years, but in France it began to rise in 2003 and the burden is planned to increase in the UK. Brazil, unlike other medium-rank powers, is pursuing global influence using a model of 'soft power' rather than increased military expenditure. Its comfortable strategic position and enhanced trading relations have allowed a reallocation of scarce resources to economic and social development.

During most of 2003, much of the focus in national military spending debates continued to be on the need to increase military spending to meet increasing dangers and risks in an increasingly complex and globalized world. However, towards the end of the year and in early 2004, there were several indications that other factors, related to the economic burden of the military sector and to ethical considerations, tended to increase in importance in several countries. In particular, the US doctrine of pre-emptive wars was being challenged on both ethical and international law grounds, as well as because of the large costs and dubious successes associated with it. Thus, while US military expenditure is set to continue to grow and will continue to propel world military spending, the pace is likely to fall back somewhat in the next few years. In the longer term it is doubtful whether current levels will be economically and politically sustainable.

• **Appendix 10A**, by **Petter Stålenheim et al.**, contains tables of military expenditure in local currency and constant dollars, and as a share of gross domestic product for the period 1994–2003.

• **Appendix 10B**, by **Petter Stålenheim**, contains data on NATO military expenditure.

• **Appendix 10C** explains the sources for and methods of data collection.

• **Appendix 10D**, by **Elisabeth Sköns and Natasza Nazet**, discusses the reporting of military expenditure data.

• **Appendix 10E**, by **Wuyi Omitoogun**, examines military expenditure in the Middle East after the Iraq war. Military expenditure in the Middle East increased by almost 10 per cent in 2003. The increase was caused mainly by two countries that share contiguous borders with Iraq: Iran and Kuwait. Saudi Arabia, the region's biggest spender, increased its military expenditure only marginally. Israel, the region's strongest military power, made a major policy decision in the light of events in Iraq to cut its military spending. Factors accounting for the limited impact of the war on military expenditure in the region include the non-participation of many of the states in the war, the unpopularity of the war among the populations in the region, and their limited absorptive capacities for additional military equipment. Internal security is increasingly becoming a preoccupation of many states in the region because of the restiveness of their populations.

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## 11. Arms production

**Elisabeth Sköns, Sibylle Bauer and Eamon Surry**

In terms of value, the overwhelming share of the production of military goods and services takes place in China, Europe, Russia and the United States. The upper segment of the global arms industry, as represented in the SIPRI Top 100 list, is characterized by three dominant trends: (a) increasing arms sales; (b) continuing concentration; and (c) changing dynamics of growth and restructuring.

Concentration activities continue to take place. However, acquisitions are no longer driven by a need for downsizing but instead primarily by a need to adjust company capabilities to new national and international opportunities. A military–technological environment in which electronics, communications and IT are increasingly employed has led to greater use of commercial technology and privately supplied services. Many company acquisitions are oriented towards these sectors.

In a security environment in which the boundaries between military security and internal security, and between national security and international security, have become more blurred, the traditional arms industry is moving into a new range of security products in a grey zone between the military and commercial sectors. The military strategy environment is increasingly oriented towards international military activities—whether peacekeeping or inter-

national coalition wars—while the trend towards internationalization of company and ownership structures, and of international armaments collaboration, is being reinforced. These trends have fundamental implications for the control of technology transfer, in particular for IT, because they make it more difficult to implement controls.

Technology transfer issues have been a contentious point in transatlantic relations since the 1950s. However, it has become both more urgent and more difficult to find an effective approach to managing the problem. Production and transfer structures have changed through the internationalization of company and ownership structures, international armaments collaboration and increased transfers of 'intangible' technology through electronic means.

Successful defence–industrial collaboration between the USA and Europe will require policy adjustments on both sides of the Atlantic. This should include reform of restrictions governing armaments collaboration with friendly nations in the USA and a tightening of end-use and international technology transfer controls in Europe. The scales of control in current collaboration projects have been heavily tilted towards the USA.

• **Appendix 11A**, by **Eamon Surry, Reinhilde Weidacher and the SIPRI Arms Industry Network**, contains a table of data on the 100 largest arms producing companies. **Appendix 11B**, by **Eamon Surry and Hannes Baumann**, contains a table on mergers and acquisitions.

**Appendix 11C**, by **Julian Cooper**, discusses the arms industries of the Russian Federation, Ukraine and Belarus. Since 1999 growth in the Russian arms industry has been export-led. Restructuring and reform have faltered and deep-rooted problems are beginning to threaten the industry's future viability. In Ukraine arms industry leaders are anxious to strengthen developing relations with the EU and NATO. Ukraine might weaken its dependence on Russia and increase its links with West and Central European arms-producing companies. Arms industry plants in Belarus should be able to supply some upgraded Soviet-era weapons to the domestic armed forces but there is likely only to be modest procurement of new systems in the next five years. Possibilities for exporting old, surplus equipment are probably reaching exhaustion, although much will depend on the willingness of Belarus to export to countries which Russia and other major exporters do not trade with for political reasons.

## 12. International arms transfers

**Björn Hagelin, Mark Bromley and Siemon T. Wezeman**

The downward trend in major arms transfers as measured by the SIPRI trend-indicator value appears to have been reversed. In both 2001 and 2003 there were clear increases in the volumes of major weapons delivered. Russia and the USA remain the major suppliers. Their main recipients were China and India (in the case of Russia) and Taiwan, Egypt, the UK, Greece, Turkey and Japan (in the case of the USA). A continued increase in US arms transfers will influence the global trend. However, domestic factors indicate that the level of Russian arms transfers is unlikely to remain high for very much longer. The future is uncertain for the other major suppliers because of international competition and remaining uncertainty about the future potential of European development and production. The relatively small suppliers of today could achieve short-term importance, as illustrated by Canada and Uzbekistan.

Events in Iraq in 2003 do not seem to have had a strong immediate impact on orders for or deliveries of major weapons. They seem instead to have supported decisions already made as a result of the war in Afghanistan. The operation in Iraq may have been carried out at a technical level beyond what most countries regard as relevant to their own defence policy or military strategy. That said, there are likely to be orders for new weapons such as precision-guided 'beyond visual range' missiles, ABM defence systems, UAVs and man-portable air defence systems (MANPADS). Since the war in Afghanistan MANPADS have been high on the international control agenda, but they may be in demand because they were among the more effective weapons in Afghanistan and Iraq.

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• **Appendices 12A and 12B** provide data on the transfers of major conventional weapons.

• **Appendix 12C** explains the sources and methods for the data collection.

• **Appendix 12D**, by **Siemon T. Wezeman**, discusses the suppliers of ballistic missiles. The proliferation of ballistic missiles has been viewed by Western countries as a problem for over 20 years. Several of the major and most problematic suppliers and recipients, such as China, Iran, North Korea and Syria, are among the most secretive countries in the world. Most reports of their activities are based on Israeli, United States or other

Western intelligence sources and are virtually impossible to verify.

North Korean export-related income is very limited and arms sales provide an important part of it. Most North Korean weapons are outdated and uncompetitive, but the country has found a niche-market for its ballistic missiles. Giving up such exports, which are not illegal, would be a large economic sacrifice. Companies and persons from former Soviet republics are trading their products and knowledge for commercial reasons, but generally without state involvement or permission. Other exporters' reasons may be more political. Chinese technology exports to Pakistan are more related to supporting an ally, as are US exports to the United Kingdom.

There may be steps in the direction of the development of very accurate ballistic missiles that could use conventional warheads more effectively. New navigation systems may dramatically improve accuracy without adding exceptional additional costs. GPS technology is widespread and other systems not dependent on signals from foreign satellites are also possible. However, the main urgency in the debate about missile proliferation arises from those missiles intended to deliver warheads armed with biological, chemical or nuclear payloads, especially nuclear warheads.

There has been some success in limiting the number of suppliers of ballistic missiles and related technology. This is partly linked to the fact that ballistic missiles—especially when they have ranges of over 1500 km, when problems of multiple stages and warhead re-entry are encountered—are fairly complicated systems which often require foreign help. That many of the key technologies required for ballistic missiles (e.g., fuel, warhead re-entry vehicles and engines) are quite distinct has also helped to control proliferation.

Importantly, some of the uncertainty about ballistic missile programmes, transfers and links between countries may soon be reduced. The 'war on terrorism' has increased controls on financial transactions and on the transfer and transportation of weapons and related materials. Revelations about and Western access to the Libyan and Iraqi ballistic missile programmes will increase understanding of the sources and mechanisms of ballistic missile proliferation. This may lead to improved controls and regulations, further limiting proliferation.

### **13. Biological weapons and potential indicators of offensive biological weapon activities**

**Roger Roffey**

Rapid developments in science, particularly in biotechnology, could be a driving force encouraging states to pursue a biological weapon (BW) capacity and opening new possibilities for potential future military or terrorist misuse. The free access to genetic sequence data for the human genome and a large number of other genomes, including for pathogenic micro-organisms, is a great scientific resource, but it could pose a significant threat if misused. Researchers now have standard methodologies for altering an organism's genetic make-up, including modifications to increase antibiotic resistance, heighten pathogenicity, increase aerosol stability or alter epitopes on organisms important for identification/diagnosis. Rapid progress in biotechnology could lead to a new class of biological warfare agents that would be engineered to target specific human biological systems—such as the cardiovascular, immunological, neurological and gastrointestinal systems—at the molecular level, thereby shifting the focus from traditional biological warfare agents.

The combination of the increased movement of people, knowledge and products across borders as well as the greater availability of expertise and information via the Internet has made it easier to acquire BW materials and know-how. In the past five years the threat from biological weapons and bio-terrorism has undergone a marked change owing to the attention given to it by politicians and the media and to a perceived enhanced risk of mass-casualty, transnational terrorism using weapons of mass destruction.

Aerosol dissemination of disease; waterborne diseases that are disseminated via water distribution systems; biological attacks on crops, cattle and the food industry; and product tampering can all harm people or cause economic damage. Agents can also be disseminated using simple technology, but the low efficiency of such methods would not cause mass casualties. Technical knowledge and special equipment would be required to carry out an attack that would cause mass casualties and, thus far, there have been few cases where dangerous pathogens have been used by terrorists. There have been a number of cases where individuals have tried to acquire and use biological agents, but these can mostly be classified as criminal cases

rather than terrorism. There have been numerous claims that al-Qaeda and the Taliban have demonstrated an interest in acquiring and using BW but such reports are ambiguous. In addition, there is the risk of the use of biological warfare in armed conflicts by states or non-state actors.

The difficulties involved in gathering reliable intelligence and trying to assess whether a country is pursuing a BW programme have been clearly demonstrated in the case of Iraq. The full extent of its programme has not yet been clarified despite detailed analysis and many intrusive inspections.

These examples of sensitive research demonstrate how difficult it is to distinguish between permitted and prohibited activities under the 1972 Biological and Toxin Weapons Convention (BTWC). All of the examples can be motivated for defensive reasons and thus are permitted. There is, however, the problem of how and by whom these research results are later used. The scientists who work in a bio-defence programme have a crucial role in preventing their research from passing the limits set by the BTWC and in ensuring that ethical codes for scientific work are adhered to and that any drift towards offensive work is prevented, which can occur if oversight and transparency are inadequate. It is also very difficult to externally monitor activities to ensure that no offensive activities are being carried out if visits or inspections are not allowed, although a number of potential indicators can be monitored together with other sources of information. Each potential indicator of offensive activities can, together with other indicators, point towards offensive biological activities. This is why careful monitoring is required.

Transparency in the rapidly developing field of bio-defence research and development is crucial in order to build confidence between states that new technologies are not being misused. One way could be to begin to elaborate further on the BTWC's confidence-building measures and information exchanges and convert them to mandatory declarations of current and past programmes.

## 14. Main trends in arms control and non-proliferation

Ian Anthony

In 2003 the issue of how to respond to the proliferation of nuclear, biological and chemical (NBC) weapons and their delivery systems continued to occupy a central place on the foreign and security policy agenda both of states and international organizations. Recent information has underlined the serious shortcomings in the level of knowledge about the NBC weapon programmes of states. Previously unknown weapon-related activities have come to light in several states, and new information highlights the need to re-evaluate what had been thought of as relatively solid conclusions about the pattern of NBC weapon programme development.

While the critical need to generate more accurate information and assessments of current trends and developments was underlined, multilateral arms control treaty regimes did not move any closer to agreement on how to identify violations of existing treaties and agreements, or how to respond where such violations are detected. The conflict in Iraq was preceded by a complete failure in the effort to develop a common approach to implementing the UN Security Council resolutions related to Iraqi disarmament.

In May 2003 US President George W. Bush announced the creation of the Proliferation Security Initiative (PSI). The purpose of the new initiative is to intercept ships, aircraft and vehicles suspected of carrying nuclear and other weapons of mass destruction, ballistic missiles, and related technologies to or from 'countries of proliferation concern'. It allows participating states to detain and search suspect shipments as soon as they enter their territory, territorial waters or airspace. Bush's announcement was quickly followed by the formation of a core group of 11 nations (Australia, France, Germany, Italy, Japan, the Netherlands, Poland, Portugal, Spain, the United Kingdom and the United States) that has begun pooling intelligence and organizing military exercises. Three additional countries (Canada, Norway and Singapore) subsequently began to participate in the activities of this core group while a large number of other states have associated themselves with it. Russia joined the PSI on 31 May 2004.

The legal basis for the PSI is the subject of controversy. Although activities carried out to date suggest that current national and international laws will provide a sufficient basis for most of what the

PSI envisages, additional clarification will be needed in the case of shipments of dual-use items that have civilian applications as well as roles in constituting WMD—which international law does not address. The PSI could have a positive effect by bringing about closer international coordination among national agencies and authorities charged with the enforcement of existing export control laws and other relevant national legislation. A practical mechanism for cooperation and information exchange between these national authorities is currently lacking.

On 13 December 2003 the Council of the European Union adopted the EU Strategy Against Proliferation of Weapons of Mass Destruction. The document drew on a set of basic principles agreed in June 2003 and set out in more detail the approach of the EU to addressing the threat of proliferation. The EU agreed an Action Plan in June 2003 that contained a specific and measurable set of projects, programmes and objectives as well as identifying the finances required to implement the agreed measures and specifying the source of that financing. At the time the WMD Strategy was adopted, the Council agreed on a procedure for monitoring and reviewing its implementation at the General Affairs and External Relations Council (in which the foreign ministers of the EU member states participate) on a six-monthly basis, thereby guaranteeing continued high-level political attention for the issue.

Arms control has focused on measures to help manage the potential security risks posed by militarily relevant quantities of weapons held by states. The attacks carried out in the United States on 11 September 2001 focused attention on two threats that were not previously addressed: weapons in the hands of non-state actors; and the threat posed by the use of items not normally thought of as weapons. In 2003 consideration was given to the role that a number of legal instruments which are not thought of as part of arms control might play in managing these threats. In particular, attention was paid to instruments that can help to secure sensitive materials and prevent their diversion to unauthorized end-users and dangerous end-uses.

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## 15. Nuclear arms control and non-proliferation

Shannon N. Kile

The nuclear non-proliferation regime continued to face serious challenges in 2003. Its main legal foundation, the 1968 Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT), suffered a setback when North Korea became the first party to withdraw from the NPT and later announced that it had developed a nuclear weapon capability. In addition, evidence emerged that Iran had secretly pursued over several decades nuclear fuel cycle technologies with direct military applications, in contravention of its NPT-mandated safeguards agreement with the International Atomic Energy Agency (IAEA). Revelations in 2003 also highlighted the willingness of some states, or of individual scientists, to sell sensitive nuclear technologies and design expertise of the kind that Iran, Libya and North Korea are alleged to have purchased from Pakistan.

These developments led to proposals for repairing perceived shortcomings in the NPT. There was particular interest in revisiting one of its key provisions: the guarantee, contained in Article IV, 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 states parties seeking to acquire nuclear weapons to legally put in place the fuel cycle facilities required to manufacturing these weapons under the cover of civil nuclear energy programmes. This perceived loophole led to interest in the idea of limiting uranium enrichment and plutonium reprocessing activities for civil nuclear programmes to a handful of fully transparent nuclear fuel cycle facilities, operating under multinational control and close IAEA supervision.

Iraq's suspected weapons of mass destruction programme remained at the centre of international attention in the wake of the US-led military campaign to oust Saddam Hussein's regime. With regard to nuclear weapons, the main question was whether Iraq had been engaged in proscribed nuclear-related activities, as alleged by pre-war US and British intelligence reports. The accuracy of these reports—and the process by which they had been put together—came under increasing critical scrutiny during the year as US inspection teams

failed to find evidence of a reconstituted Iraqi nuclear weapons programme.

In December, Libya announced that it would verifiably abandon and verifiably dismantle, under international inspection, its WMD and ballistic missile programmes. Some observers perceive Libya's announcement, following the removal of Saddam Hussein and the disclosure of Iran's nuclear programme, as a unique opportunity to work towards the goal of establishing a WMD-free zone in the Middle East.

• **Appendix 15A**, by **Hans M. Kristensen**, contains tables of the nuclear forces of the USA, Russia, the UK, France, China, India, Pakistan and Israel. During 2003, the five states defined by the NPT as nuclear weapon states continued to deploy more than 16 000 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 36 500 warheads. All of these states, with the exception of the UK, had significant nuclear weapon modernization programmes under way. In the USA, Congress voted to lift a decade-long ban on research work on new types of low yield and earth-penetrating nuclear weapons. Critics charged that this decision further weakened international efforts to delegitimize nuclear weapons. India and Pakistan, which along with Israel are de facto nuclear weapon states outside the NPT, were believed to be increasing the number of their nuclear warheads and developing new, longer-range ballistic missiles for delivering them.

• **Appendix 15B**, by **Shannon N. Kile**, discusses ballistic missile defence. The US Defense Department accelerated R&D and procurement programmes to begin deploying by the end of 2004 an initial missile defence system to protect US territory. The system's architecture will evolve as improved interceptors and sensors are developed. However, the DOD was criticized for rushing to deploy anti-missile systems before they had been adequately tested and shown to operate effectively. Elsewhere, in 2003, there were missile defence programmes under way in Israel and Russia; India and South Korea expressed interest in developing their own missile defences; and Japan announced an ambitious plan to develop a multi-layer missile defence system in cooperation with the USA.

## 16. Chemical and biological warfare developments and arms control

Richard Guthrie, John Hart, Frida Kuhlau and Jacqueline Simon

Events in 2003 included the first of a new form of annual meeting for states parties to the 1972 Biological and Toxin Weapons Convention (BTWC) and the first review conference of the 1993 Chemical Weapons Convention (CWC), as well as the establishment of an ad hoc cooperative mechanism aimed at stopping the spread of nuclear, chemical and biological methods of warfare: the Proliferation Security Initiative (PSI). The year also included the military occupation of Iraq and the renouncing of chemical and biological weapons by Libya.

In Iraq, 2003 began with inspections by the United Nations Monitoring, Verification and Inspection Commission (UNMOVIC), which continued until inspectors were withdrawn in March and the country was occupied by forces of the United States and the United Kingdom and their coalition partners. The coalition then carried out its own search efforts. By the end of the year no clear evidence that prohibited weapons existed at the time of the attack had been made public. Questions were raised about the reliability of intelligence assessments and the degree to which these might have been politicized.

In December President Muammar Qadhafi made a commitment to dismantle Libya's WMD, including its chemical weapon stockpile, following several months of secret negotiations. This commitment includes the acceptance of international inspectors in Libya. The decision to demonstrate verifiably that Libya no longer possesses these weapons suggests that, in some cases, maintaining a policy of ambiguity as to whether a country possesses certain weapon programmes is less tenable in the current security environment.

The Libyan decision also suggests that ad hoc coalitions of like-minded states acting on specific issues of concern to meet perceived threats can be effective under certain circumstances. Conversely, the case of Iraq has raised doubts as to whether ad hoc coalitions can be sufficiently certain of the accuracy of their information. The actions of such coalitions should be seen to be justified by the existence of reliable information and not unduly influenced or driven by political considerations. Otherwise there is a risk that the international credibility of their actions will be fundamentally undermined.

The first of the annual series of expert and political meetings of states parties to the BTWC was held in accordance with the decision of the reconvened Fifth BTWC Review Conference (held in 2002). These are scheduled to continue until the Sixth Review Conference in 2006. The focus of the meeting in 2003 was on national measures to implement the convention's prohibitions and the security and oversight of pathogenic organisms and toxins. There is no consensus among states parties on the extent to which efforts to strengthen the regime can or should be carried out within other forums (e.g., the Australia Group, the PSI and the World Health Organization) and the extent to which such efforts should be pursued within the BTWC regime itself.

A special conference of the parties to the CWC, held during the review conference, took a final decision to implement a policy that limits the tenure of employees in the Technical Secretariat of the Organisation for the Prohibition of Chemical Weapons (OPCW) to seven years. The OPCW also adopted a 'plan of action' to ensure that the parties have met their obligations to put in place effective national implementation measures.

The parties to the CWC need to ensure that the OPCW's institutional memory and expertise are maintained as the new tenure policy is implemented. The parties should also continue to take into account relevant scientific and technological developments. If the OPCW does not formally consider the applicability of CWC provisions regarding non-lethal weapons or incapacitants and agree relevant policy decisions, there is a risk that this issue will be decided on the basis of implementation practice rather than deliberate policy.

• *Appendix 16A, by James Thuo Njuguna, discusses the control of infectious diseases and biological weapon research, with reference to the SARS epidemic.* The rapid spread of severe acute respiratory syndrome (SARS) in early 2003 was perceived by a number of governments as a challenge to security because of its impact on their economies, including health care systems. The speed with which SARS spread also contributed to concern about the potential threat posed by biological weapons generally and the use of infectious disease as a method of warfare in particular. The SARS epidemic is a useful case study for evaluating national and international capabilities to deal with disease outbreaks, both naturally occurring and deliberate, including related implications for the BTWC.

## 17. Conventional arms control

**Zdzislaw Lachowski and Martin Sjögren**

More than four years after the 1999 Agreement on Adaptation of the 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty) was signed, the conventional arms control process in Europe remains deadlocked. The main sticking point continues to be Russia's non-compliance with the commitments it made at the 1999 Organization for Security and Co-operation in Europe (OSCE) Istanbul Summit, particularly those regarding the withdrawal of Russian military forces from Georgia and Moldova. The second wave of NATO enlargement caused Russia to intensify its diplomatic and political rhetoric in 2003 and early 2004, alleging that enlargement would deal a 'fatal blow' to the European conventional arms control regime. The resulting confrontation has made both NATO and Russia aware of the need to find a means to deal with the problem.

In 2003 the OSCE participating states remained focused on improving certain norm- and standard-setting measures (NSSMs) and developing new ones in order to better respond to the various threats and challenges facing Europe and its perimeter.

In 2003 a Handbook of Best Practices on Small Arms and Light Weapons (SALW) was published to assist participating states in implementing the 2000 OSCE SALW Document. A great deal of work was also done to promote the 1994 Code of Conduct on Politico-Military Aspects of Security (COC) in the states of Central Asia and the Caucasus and in other former Soviet states. The OSCE's efforts to combat terrorism led the participating states to propose new arms control-related initiatives. Most significantly, at the OSCE Maastricht Ministerial Council, the OSCE Document on Stockpiles of Conventional Ammunition was adopted, setting out a process whereby requesting states would receive assistance with the destruction of their surplus ammunition.

The Treaty on Open Skies had a smooth second year of implementation. Three states ratified the treaty in 2003, and several others are in the process of doing so.

In the Balkans, regional arms control continues to work well, evidently unaffected by political, economic and other factors in the region.

Although the European conventional arms control regime is by far the most advanced of its type in the world, significant progress is being made in

other regions. Within the framework of the Organization of American States (OAS), headway was made in 2003 in elaborating the confidence- and security-building measures (CSBMs) process in the western hemisphere. A Meeting of Experts on CSBMs took place in Miami, Florida, which built on earlier meetings organized during the 1990s. Recommendations were made on voluntary CSBMs dealing with both traditional and new security threats.

At the November Meeting of States Parties to 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), Protocol V on Explosive Remnants of War (ERW) was adopted. Among other things, the protocol commits signatories to clear or assist in the clearance of ERW following armed conflicts. The protocol was opened for signature and ratification. The attention given to restricting the use of anti-vehicle mines demonstrates the willingness of states to mitigate the consequences of the use of weapons that predominantly affect civilians.

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## **18. Transfer controls and destruction programmes**

**Ian Anthony and Sibylle Bauer**

There were new developments in 2003 in all four international informal export control regimes (the Australia Group, the Missile Technology Control Regime (MTCR), the Nuclear Suppliers Group and the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technology), as well as in export control-related policies in the European Union and international non-proliferation disarmament and assistance efforts.

During 2003 activities in the export control regimes focused on adapting export controls to achieve two objectives: first, to combat the proliferation of nuclear, biological and chemical weapons (and missile delivery systems for them); and second, to combat terrorism. There has been a particular focus on measures to prevent the acquisition of weapon of mass destruction-related materials and technology as well as man-portable air defence systems (MANPADS) by groups planning terrorist acts. The MTCR amended its agreed Guidelines to ensure that all participating states have 'a legal basis to control the export of items that are not on a control list, when such items are destined for missile programmes'. Participating states also agreed to apply controls to the transfer of technology by intangible means, for example, via email or by word of mouth.

States participating in the Wassenaar Arrangement changed the founding document to include an exchange of information on transfers of small arms and light weapons and MANPADS. States agreed to strengthen export controls on MANPADS, arms brokering and unlisted items that can be used for both military and civilian purposes. The European Union took steps to ensure that export controls remain effective in the enlarged EU.

National controls on the export of dual-use items are being evaluated, and the first fundamental review of the EU Code of Conduct on Arms Exports is under way.

Effective export control in the majority of new EU member states is undermined by their exclusion from one or more of the information exchanges that take place in the export control cooperation arrangements. Full participation by all EU member states in all regimes will be a critical issue in 2004.

In 2003, governments participating in the G8 Global Partnership Against Weapons and Materials

of Mass Destruction eliminated obstacles to the implementation of some international non-proliferation and disarmament assistance projects. In 2004 projects to eliminate chemical weapons and dismantle decommissioned nuclear-powered submarines in Russia are expected to be the main focus of activity.

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## 19. Withdrawal from arms control treaties

Christer Ahlström

The role of legally binding agreements in achieving arms control objectives has been the subject of discussion in recent years. One specific aspect, the circumstances in which a state may unilaterally withdraw from its legal obligations, has become especially controversial.

A legally binding agreement under international law—a treaty—is generally seen as a robust tool for the recording of agreements between states. The conclusion, maintenance and termination of such agreements are governed by a branch of international law known as ‘the law of treaties’. The performance of obligations owed under a treaty is safeguarded by the principle expressed in the Latin maxim *pacta sunt servanda*—agreements are to be honoured in good faith. A central element in the notion of a legally binding agreement is that its termination is subject to the application of legal rules, rather than the discretionary interests of single parties. Subjecting the termination of a treaty to legal rules and principles serves to maintain stability and predictability in international relations.

On 10 January 2003, North Korea revoked a 10-year ‘moratorium’ on its 1993 unilateral withdrawal from the multilateral 1968 Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT). In 1993 it had invoked a special clause in the NPT that allows a party, in exercising its national sovereignty, to withdraw from the treaty if it decides that ‘extraordinary events’ have jeopardized its supreme interests. The North Korean withdrawal from the NPT in 2003 was the first instance of such a clause being invoked in relation to a modern multilateral arms control agreement. However, it was not the first instance of a state using a similar clause to renounce obligations owed under an arms control treaty. In 2002, the United States withdrew from the 1972 Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty), a bilateral agreement between it and the Soviet Union/Russia, by invoking a similar clause on unilateral withdrawal.

The actions taken by the North Korean and US governments are unprecedented in the modern history of international arms control and raise several fundamental and important questions in relation to the role usually attributed to legally binding agreements as a robust tool for arms control. *Prima facie*, a unilateral withdrawal would seem to run

counter to the notion that the termination of a legally binding international agreement should not be at the discretionary interest of a single party. On the other hand, because both the USA and North Korea invoked provisions that were part of the *pactum* in question, their actions are not contrary to the principle of *pacta sunt servanda*. However, it should also be emphasized that the context is markedly different in each case. The USA withdrew from the ABM Treaty because its plans for the development of a ballistic missile defence system would have violated the treaty. North Korea, however, invoked the withdrawal clause *after* having violated its obligations under the NPT.

What effect, if any, these two events might have on future invocations of the extraordinary events clause remains to be seen. In any event, it cannot be said that the requirement to provide an explanation served as a moderating factor in either case. None of the arguments presented by the states concerned in support of the use of the clause is persuasive.

Neither case resulted in any negative consequences for the withdrawing party. This could set a future standard and may in a sense ‘lower the threshold’ for the invocation of this type of withdrawal clause in order to terminate legally binding relationships. This would, in turn, run counter to efforts to obtain stability and predictability in international relations.

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**Annex A**, by **Nenne Bodell**, summarizes the major arms control and disarmament agreements and lists the signatories and the states parties as of 1 January 2004.

**Annex B**, by **Nenne Bodell and Connie Wall**, is a chronology of the major arms control and security-related events of 2003.

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