

SIPRI
YEARBOOK
2004

**ARMAMENTS,
DISARMAMENT AND
INTERNATIONAL
SECURITY**

Stockholm International Peace Research Institute



The Stockholm International Peace Research Institute is an independent international institute for research into problems of peace and conflict, especially those of arms control and disarmament.

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- to contribute to conflict prevention and resolution
- to disseminate information to the broader public.

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SIPRI Yearbook 2004
Armaments, Disarmament and
International Security

which may be obtained through all the main bookshops or from Oxford University Press, UK.

The SIPRI Yearbook has been published since 1969. It brings together objective data and state-of-the-art analysis, offered by SIPRI's own staff and other experts, on all major aspects of arms control, peace and security. The 2004 edition takes as its connecting theme the impact of the Iraq crisis in many different dimensions of international security, but it also highlights important trends arising elsewhere, in both geographical and functional areas. The Yearbook is also published in Arabic, Chinese, Russian and Ukrainian editions. This condensed version is available on the Internet in English, French, German, Spanish and Swedish at <http://editors.sipri.org/recpubs.html>.

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Euro-Atlantic organizations and relationships

- European–US and intra-European disunity during the Iraq war was rapidly succeeded by efforts to rebuild Euro-Atlantic and European consensus, resulting in major adaptations of both NATO and the European Union to new global challenges. The ‘big bang’ enlargement of both institutions and NATO’s transformation away from territorial defence to expeditionary operations continued largely on schedule.

- It proved impossible to adopt the new EU Constitution on schedule in December 2003. However, the operational and conceptual foundations of the European Security and Defence Policy were strengthened by several steps taken from June onwards, including the adoption of the EU’s first Security Strategy.

- Events in 2003 demonstrated that no breakthrough is likely to be made soon in the security dimension of the Organization for Security and Co-operation in Europe.

- The Balkan states coped, in various ways and with different successes, with the tasks of building democracy and stabilizing their economies.

- Russia pursued a more assertive ‘managed democracy’ in its domestic policies, while seeking to restore its influence over neighbouring states, even at the risk of harming its relations with the West.

Major armed conflicts

- There were 19 major armed conflicts in 18 locations in 2003. The number of major armed conflicts and the number of conflict locations were slightly lower in 2003 than in 2002, when there were 20 major armed conflicts in 19 locations. Four of the 19 conflicts in 2003 were in Africa and eight in Asia.

- In the 14-year post-cold war period, there were 59 different major armed conflicts in 48 different locations. The number of major armed conflicts in 2003 was the lowest for the entire period except for 1997, when there were 18 major armed conflicts.

- Two interstate conflicts were active in 2003: the conflict between Iraq and the multinational coalition; and the conflict between India and Pakistan.

- The majority of the major armed conflicts today are intra-state. The persistence of intra-state wars, and their resistance to quick solutions, was reflected in 2003 by the continuation of the Colombian and Israeli–Palestinian conflicts.

- The potential for sudden and rapid escalation of intensity was evident in conflicts such as Burundi, Côte d'Ivoire, Indonesia, Liberia and Sudan (Darfur). The current international focus on the threat of terrorism is affecting the strategies, intensity and course of intra-state conflicts such as those in Indonesia and the Philippines.

- Outside actors cannot enforce a quick peace, as demonstrated in Afghanistan, Côte d'Ivoire, Iraq and Sri Lanka. The year demonstrated that intra-state conflicts can be brought to an end only through sustained and comprehensive external engagement. As illustrated by the peace agreements in 2003 in Liberia and Sudan, external assistance, mediation and support are vital to help bring warring parties to a negotiated end to conflict.

The locations of the 19 major armed conflicts in 2003

Africa

Algeria
Burundi
Liberia*
Sudan

America

Colombia
Peru
USA

Europe

Russia

Asia

India* (Kashmir)
India–Pakistan*
Indonesia*
Myanmar (Burma)
Nepal*
Philippines (2 conflicts)
Sri Lanka

Middle East

Iraq*
Israel
Turkey

* These 6 conflicts each caused 1000 or more deaths in 2003. The conflict in the USA refers to that between the al-Qaeda network and the USA and its coalition partners. The new conflicts registered for 2003 were those in Iraq, Liberia and Sudan.

The Iraq war: the enduring controversies and challenges

- Operation Iraqi Freedom began on 20 March 2003. On 9 April US forces took control of central Baghdad and the Iraqi Government fell. Major combat operations ended formally on 1 May 2003, but as of May 2004 the Coalition Provisional Authority was still active in Iraq.

- The Iraq war is likely to remain one of the most controversial conflicts of modern times. It lacked explicit UN Security Council authorization, and the degree to which Iraq's nuclear, biological and chemical weapons posed a threat was the subject of debate.

- The operation resulted in the successful overthrow of Saddam Hussein's regime, but no evidence of weapons of mass destruction was uncovered and serious security problems continued after the end of the war.

- North Korea, Iran and Syria were seen by some as the most likely targets for the USA's next regime change. However, the difficulties of post-war stabilization and the long-term costs of the war may challenge the view that Iraq has set a precedent for US actions elsewhere in the world.

- 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.

Multilateral peace missions

- 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.

- There were 52 multilateral peace missions in operation in 2003, 4 more than in 2002. They were conducted or led by: *the UN* (14 peacekeeping operations, 4 political and peace-building missions, and 1 UN-authorized multinational operation carried out by an ad hoc coalition of states)

the OSCE (10)

NATO (4)

the EU (5)

Russia and the CIS (3)

the AU (1)

ECOWAS (2)

CEMAC (1)

other organizations or ad hoc state coalitions (7).

- The UN's role in post-conflict peace-building was illustrated by the fact that 2 of the 3 new UN missions—in Côte d'Ivoire and Iraq—were peace-building missions.

- The establishment of 11 peace operations by a range of regional actors highlights the increasing prevalence of regional organizations and ad hoc coalitions in multilateral peace missions and the diversity of their engagement, including out-of-area operations by the EU in the DRC and by NATO in Afghanistan.

- A total of 41 188 military personnel, 4642 civilian police and 3580 civilian staff participated in the 18 UN operations. The total cost of the operations was \$2.3 billion. Regional organizations and ad hoc coalitions carried out 34 missions, involving 211 294 military personnel, 1008 civilian police and 1074 civilian staff. The total cost of these operations in 2003 was at least \$58.1 billion.

Post-conflict justice: developments in international courts

- In 2003 the International Criminal Court (ICC) became fully operational. The court's first priorities will be to address the situations in the Ituri region of the DRC and in Uganda. There was continued US opposition to the ICC.

- 'Hybrid' courts—part international and part national—such as the Special Court for Sierra Leone and the Extraordinary Chambers for Cambodia were created.

- The International Criminal Tribunal for the Former Yugoslavia (ICTY) and the International Criminal Tribunal for Rwanda (ICTR) began the completion strategies which will enable them to end all activities by 2010.

- The Iraqi Special Tribunal, a domestic tribunal with little international participation, was established. International involvement in the tribunal will be limited to the use of, i.a., advisers, observers and specially appointed judges. The advisers have little authority, and it is unclear to whom they would report if it became evident that the tribunal was not following international standards.

- The international community has spent over \$1 billion on international courts. With the establishment of so many courts, the issue of their financial sustainability has become an important question.

- Developments in 2003 illustrated that the delivery of justice as an essential element of post-conflict peace-building has emerged as an internationally accepted norm. A combination of global, international, national and grassroots judicial instruments, rather than a monolithic approach, is required to more effectively reduce the 'impunity gap'.

China's new security multilateralism and its implications for the Asia–Pacific region

- China has become an increasingly proactive participant in security multilateralism, taking the initiative to establish and sustain new regional security mechanisms. These steps mark a dynamic shift in China's overall foreign policy and have resulted in an increasingly influential political and security role for China in the Asia–Pacific region.

- Participation in the ASEAN Regional Forum has helped China enhance stability and improve relations with its neighbours. It may also provide an opportunity to address conflict prevention.

- Within the Shanghai Cooperation Organization, China has made progress in military confidence-building measures and held at least 2 multilateral military exercises.

- China has become a constant participant in UN military peacekeeping missions and recently contributed to a police mission in Timor-Leste.

- Another important factor in China's progress will be whether it can reconcile the tensions between multilateralism and its own steadfast opposition to third-party interference in what it considers 'internal affairs', meaning primarily the status of Taiwan.

- Possible obstacles to China's continued progress in security multilateralism include unresolved tensions in the China–Japan relationship and fundamental strategic disagreement between China and the USA.

National defence reform and the African Union

- The transformation of African defence and security was an uneven process in 2003. The Peace and Security Council of the African Union (AU) and the New Partnership for Africa's Development (NEPAD) were instituted, and the Common African Defence and Security Policy and the African Standby Force process were activated.

- A strategic shift towards more robust African peacekeeping and intervention capabilities is taking place within the AU, the Economic Community of West African States, the Inter-governmental Authority on Development and the Southern African Development Community. New peace and security strategies are being developed to give these organizations a greater role in managing and resolving African conflicts.

- In 2003 security sector reviews, White Paper processes and defence restructuring initiatives were under way in Ghana, Mozambique, Rwanda, Senegal, Sierra Leone, South Africa and Uganda.

- The conflicts in Algeria, Burundi, Liberia and Sudan indicate that the attainment of peace and security in Africa will be a long process.

- Key challenges for African defence reform include building capacity at the national level, dealing with the risk of competition between 'African superpowers' for the dominant positions in African organizations and avoiding the risk of overextending capabilities, both civil and military.

Security sector reform in the Western Balkans

- Security sector reform throughout the Western Balkans is encountering the dual challenges of transition from state socialism and the lingering effects of recent armed conflict and ethnic cleansing. Common problems have arisen from the phenomena of weak states, fractured societies, and exploitation by organized crime and corruption.

- In Albania, military and police reforms are handicapped by corruption and basic failures of democracy, such as interference with the media. Progress in institutional reform, strengthening central and local government, and combating organized crime and corruption has been slow.

- In Bosnia and Herzegovina, a key challenge has been to restore a modicum of authority and control in the realm of security to the weak central authorities.

- Croatia, a credible candidate for NATO membership, is gearing its defence reforms accordingly.

- The Former Yugoslav Republic of Macedonia (FYROM) is undertaking similar reforms but is having difficulties creating internal security forces that represent and are respected by the ethnic Albanian minority.

- Serbia and Montenegro, despite the country's late start on true defence reform, is now bidding for membership of the NATO Partnership for Peace. The question of the ultimate status of Kosovo, a UN protectorate since 1999, has created an extra dimension of instability for the province and the region.

- The international community is directly driving reform by controlling some security functions and policies and by attempting to apply post-conflict justice. Its actions may, however, be reducing the sense of local ownership of security sector reform.

Military expenditure

- World military expenditure in 2003 amounted to \$956 billion (in current dollars)—an increase of about 11% in real terms. This remarkable rate of increase is due primarily to the massive US supplementary spending for the war in Iraq.

- The USA accounts for almost half of world military spending. After reductions in military spending in 1987–98 and moderate increases in 1998–2001, a series of supplementary appropriations for the wars in Afghanistan and Iraq following the terrorist attacks of 11 September 2001 resulted in massive increases in US spending in 2002 and 2003.

- Other major spenders—China, France, Japan and the UK—each account for 4–5% of world military expenditure.

- Thirty-two high-income countries account for 75% of world military spending, allocating over 10 times more to the military than to official development assistance.

- Military expenditure is rising not only in the USA but also in several other major countries, but these latter increases are much smaller.

- US military expenditure will continue to grow over the next few years, but the pace is likely to slow. It is doubtful whether even current levels will be economically and politically sustainable in the longer term.

Military expenditure in the Middle East after the Iraq war

- Military expenditure in the Middle East increased in 2003 by almost 10% in real terms, which was more than twice the annual average rate of the previous years of the 10-year period 1994–2003. However, the overall effect of the war in Iraq on military expenditure in the Middle East was limited in comparison to the effect of the 1991 Gulf War, which had increased military spending in the region by 34%.

- The increase in 2003 was accounted for mainly by 2 countries that share contiguous borders with Iraq: Iran and Kuwait. Iran and Kuwait increased their military spending by 25% and 36%, respectively, in real terms.

- Saudi Arabia, the biggest spender in the region, increased its military expenditure only marginally, while Israel cut its spending in 2003. In these two countries it appears that domestic constraints had a greater influence on military spending trends than did the war in Iraq.

- Other factors accounting for the limited impact of the 2003 Iraq war on military spending include the non-participation of many Middle Eastern states in the war, the unpopularity of the war among their populations, and their limited absorptive capacities for additional military equipment.

Arms production

- The total arms sales of the top 100 arms-producing companies in the world, excluding China, amounted to an estimated \$192 billion in 2002, an increase of c. 14% over the previous year (in current dollars).

- Three dominant trends are now evident in the global arms industry. At the company level, arms sales are increasing; and there is a reorientation towards expanding sectors such as electronics, communications, IT and services. At the industry level, the concentration process continues, but at a slower pace.

- The war in Iraq highlighted and may reinforce key developments in the arms industry. Many contracts were won by private military firms (PMFs). The parallel success of both new and 'legacy' technologies in the conflict is likely to result in a continued debate over arms procurement policies.

- Successful defence-industrial collaboration between Europe and the USA will require reform of US restrictions governing arms collaboration with friendly nations and a tightening of European end-use and international technology transfer controls.

Arms sales of the 5 largest arms-producing companies in the world (excluding China), 2002

1 Boeing (USA)	\$20.5 billion
2 Lockheed Martin (USA)	\$18.9 billion
3 Northrop Grumman (USA)	\$17.8 billion
4 Raytheon (USA)	\$15.3 billion
5 BAE Systems (UK)	\$14.0 billion

The arms industries of Russia, Ukraine and Belarus

- The output of the Russian arms industry has grown rapidly since 1999, but this growth has been fuelled by export orders rather than domestic procurement. The Russian workforce and capital stock have undergone only modest renewal, and restructuring to create large corporations has progressed much more slowly than envisaged.

- Russian arms exports reached a record level in 2003, but it will be difficult to sustain this level. Future prospects for the Russian arms industry remain uncertain. Much will depend on the pace of industry restructuring and on the extent to which private companies can supply both external customers and the armed forces.

- Ukraine may decide to gradually weaken its dependence on Russia and increase its links with West and Central European arms-producing companies, given that Ukraine's leadership is attempting to strengthen relations with the EU and NATO.

- There is likely to be only modest procurement of new systems in Belarus in the next 5 years. Belarus is unlikely to remain a front-rank actor on the arms export scene.

- The arms industries of Belarus and Russia are strongly integrated. Future prospects for the arms industry in Ukraine and Belarus will depend to a considerable extent on the evolution of their relations with Russia.

International arms transfers

- The 5 largest arms suppliers in the 5-year period 1999–2003—the USA, Russia, France, Germany and the UK—accounted for 81% of total transfers of major conventional weapons.

- In 2003 the USA accounted for almost 23% of all transfers and, for the third year in a row, ranked second after Russia.

- The 5 largest arms recipients in 1999–2003—China, Greece, India, Turkey and the UK—accounted for 35% of all imports of major conventional weapons.

- The war in Iraq in 2003 does not seem to have had a strong impact on orders for or deliveries of major conventional weapons. Instead, it seems to have supported previous decisions, particularly those made as a result of the war in Afghanistan. Still, the war may have increased international interest in new weapons such as precision-guided ‘beyond visual range’ missiles, ABM defence systems, UAVs and MANPADS.

- The financial value of the arms trade in 2002 is about \$26–34 billion, estimated on the basis of official government and industry data on the value of their arms exports. This value represents 0.4–0.5% of total world trade in 2002.

- There was one new international arms embargo in 2003: on 28 July 2003 the UN Security Council established a mandatory embargo on arms exports and other military assistance to some armed groups in the DRC.

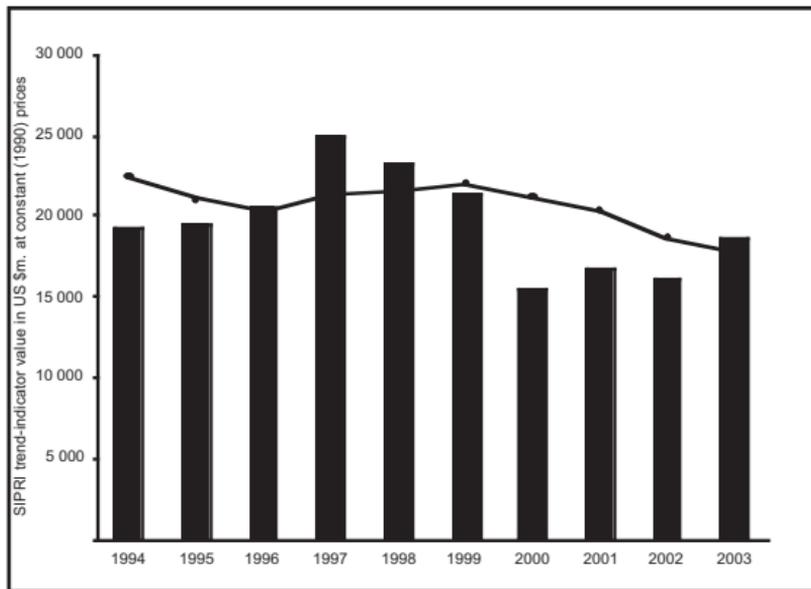
- UN sanctions against Libya were lifted on 12 September 2003, and the UN embargo against Iraq was modified in May 2003 after the formal ending of hostilities by the military powers and the establishment of the Coalition Provisional Authority.

The top 5 exporters of major conventional weapons in 1999–2003

Shares of world exports

1	USA	34%
2	Russia	c. 30%
3	France	7%
4	Germany	c. 6%
5	UK	5%

The trend in transfers of major conventional weapons, 1994–2003



The histogram shows annual totals and the line denotes the 5-year moving average. Five-year averages are plotted at the last year of each 5-year period.

Ballistic missile defence

- In 2003 the US Department of Defense (DOD) accelerated R&D and procurement programmes to begin deploying by the end of 2004 an initial missile defence system to protect US territory.
- There was considerable criticism that the DOD was rushing to deploy anti-missile systems before they had been adequately tested and shown to operate effectively.
- NATO awarded a contract for the study of a missile defence system to protect the territory of its European member states and its peacekeeping forces from attack by short- to intermediate-range ballistic missiles.
- Russia and the USA continued to discuss possibilities for missile defence cooperation.
- Israel carried out further tests of the Arrow 2 anti-missile system, which it developed jointly with the USA. The Arrow 2 is the most mature of the collaborative missile defence programmes.
- India and South Korea expressed interest in developing their own missile defences.
- Japan announced its intention to develop a multi-layer missile defence system in cooperation with the USA.
- The growing international interest in missile defence systems was motivated in part by the desire of some countries to promote their defence industrial cooperation with the USA. Another factor was concern about the proliferation of short- and intermediate-range ballistic missiles in East Asia, South Asia and the Middle East.

Suppliers of ballistic missile technology

- There is considerable concern, especially among Western governments, about the proliferation of ballistic missiles. These missiles are generally only militarily useful if armed with nuclear, biological or chemical warheads.

- Many countries with missile programmes have or are suspected to have WMD programmes.

- Missile exports are an important source of income for North Korea, a supplier of missiles and technology. The USA has also been involved in several transfers of ballistic missiles and related technology.

- China, Russia and Ukraine are suppliers of ballistic missile technology. Most European involvement in the supply of ballistic missile technology has now ended, and European states have extended their export controls to prevent further involvement.

- There has been some success in limiting the number of suppliers of ballistic missiles and related technology. Ballistic missiles, particularly those with ranges of over 1500 km, are complicated systems. Countries often require foreign help to develop them, and many of the key technologies required for them are quite distinct.

- Access to data on Iraqi and Libyan missile programmes will increase knowledge about the trade in ballistic missiles and related technology and will improve non-proliferation efforts. The 'war on terrorism' has increased controls on financial transactions and on the movement of weapons and related materials, contributing to reducing the uncertainty about ballistic missile programmes.

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

- Major arms-producing countries are now increasingly using science and technology for military purposes, a phenomenon called S&T-based military innovation. This innovation involves the cooperation of defence ministries, armed services and related research organizations on basic and applied research and exploratory technology development.

- The USA has been using S&T-based military innovation as standard procedure at least since World War II.

- Of the major European military producers, the UK has most clearly demonstrated a new emphasis on S&T-based military innovation.

- The reasons why Europe lacks a coordinated S&T-based military innovation policy—in spite of the European Security and Defence Policy—include national competition within Europe, the relatively recent inclusion of defence as an EU task and the lack of a clear allocation of competences between the pillars of the EU.

- It is open to question whether European S&T will be sufficient to meet the capability ambitions of the European Union. Exploiting foreign S&T for EU military innovation could enhance European national S&T-based military innovation and multi-national research programmes.

- A shift towards EU S&T-based military innovation will have long-term consequences for data and transparency; for research ethics; and for finding a political balance between cooperation, competition and technology controls among friends as well as foes.

Major trends in arms control and non-proliferation

- In 2003 several previously unknown weapon-related activities came to light, highlighting the need for more accurate information on the development of nuclear, biological and chemical weapon programmes. In the case of Iraq, new information made it clear that widely held assessments about its weapon-related activities were inaccurate.

- Multilateral arms control treaty regimes made little progress in agreeing on how to identify and respond to treaty violations.

- In May 2003 President George W. Bush announced the implementation of the Proliferation Security Initiative (PSI), allowing the interdiction of ships, aircraft and vehicles suspected of carrying weapons of mass destruction (WMD), ballistic missiles and related technologies to or from 'countries of proliferation concern'. The PSI's legal basis is controversial, but the initiative could improve international coordination on export controls. On 4 September, in Paris, a Statement of Interdiction Principles was agreed to outline the scope of the PSI.

- On 12 December 2003 the EU Strategy Against the Proliferation of WMD was adopted, guaranteeing continued high-level attention by European states to non-proliferation.

- Arms control has focused primarily on managing the risks posed by weapons held by states. In 2003 consideration was given to the use of legal instruments to manage 2 new threats: weapons in the hands of non-state actors; and the use of materials and technologies not traditionally considered weapons.

Nuclear arms control and non-proliferation

- The nuclear non-proliferation regime faced serious challenges in 2003. The Non-Proliferation Treaty (NPT) suffered a setback when North Korea formally withdrew from the treaty and later announced that it had a nuclear weapon capability. Talks aimed at resolving the North Korean nuclear crisis made no progress.

- Evidence emerged that Iran had been secretly pursuing nuclear fuel cycle technologies with direct military applications without declaring these activities to the International Atomic Energy Agency. Iran signed an Additional Protocol to its safeguards agreement and stated that it would suspend all its uranium enrichment and reprocessing activities.

- The US Congress decided to lift its 10-year ban on research work on low-yield nuclear weapons.

- US inspection teams continued to search for evidence of weapons of mass destruction (WMD) in Iraq. The Iraq Survey Group released an interim report that presented evidence of Iraq's ambition to acquire nuclear weapons, but analysts released several other reports that were critical of pre-war US intelligence assessments of Iraq's nuclear capabilities.

- The Treaty on Strategic Offensive Reductions was ratified by Russia and the USA and entered into force, committing each party to reduce the number of its operationally deployed nuclear warheads so that the aggregate numbers of these warheads for each country do not exceed 1700–2200 by 31 December 2012.

- A positive development was Libya's announcement that it would verifiably abandon and dismantle its WMD. It also ratified the Comprehensive Test-Ban Treaty.

**World nuclear forces:
numbers of warheads as of January 2004**

<i>Country</i>	<i>Year of first nuclear test</i>	<i>Deployed warheads</i>
USA	1945	7 006
Russia	1949	7 802
UK	1952	185
France	1960	348
China	1964	402
India	1974	30–40
Pakistan	1998	30–50
Israel	–	c. 200
<i>Total</i>		<i>c. 16 033</i>

• The USA's active deployed nuclear weapon stockpile consists of 5886 strategic and 1120 non-strategic warheads. Russia's active deployed stockpile consists of 4422 strategic and 3380 non-strategic warheads. The nuclear arsenals of India, Israel and Pakistan are thought to be only partly deployed.

• As of early 2004 an estimated total of about 16 033 warheads were deployed. If all nuclear warheads are counted—including non-deployed spares, those in active and inactive storage, and 'pits' (plutonium cores) held in reserve—the nuclear weapon stockpile of the 5 states defined by the NPT as nuclear weapon states—the USA, Russia, the UK, France and China—amounts to 36 500 warheads.

Biological weapons and potential indicators of offensive biological weapon activities

- Recent developments in biotechnology could be a driving force to encourage states to pursue a biological weapon capacity, opening new possibilities for future military or terrorist misuse.

- Today researchers have standard methodologies to alter an organism's genetic make-up. Rapid progress in biotechnology could lead to a new class of biological warfare agents that will be engineered to target specific human biological systems at the molecular level, shifting the focus from traditional biological warfare agents and making defence more difficult.

- It is difficult to distinguish between permitted and prohibited research activities under the Biological and Toxin Weapons Convention (BTWC). From a technical and scientific standpoint, no single measure can distinguish conclusively between permitted and prohibited activities, but a combination of measures could serve this function.

- In order to identify and prevent prohibited activities, there is a need to better understand these security threats, and the transparency of R&D efforts to protect populations against biological weapons must be increased. All biodefence programmes should be declared as part of the annual, politically binding information exchanges that are designed to help strengthen the BTWC.

Chemical and biological warfare developments and arms control

- In 2003 the states parties to the Biological and Toxin Weapons Convention met to assess the implementation of the convention's provisions and of national measures for security and oversight of pathogens and toxins.

- The First Review Conference of the States Parties to the Chemical Weapons Convention (CWC) was held, and a plan of action was implemented to ensure that member states implement national measures.

- The parties to the CWC should monitor relevant scientific and technological developments and ensure that OPCW procedures take them into account. For example, if the OPCW does not formally consider that the CWC provisions apply to non-lethal weapons and incapacitants and does not agree relevant policy decisions, there is a risk that the applicability of the provisions will be decided on the basis of implementation practice rather than on policy.

- No prohibited chemical or biological weapon stockpiles were found in Iraq, and questions were raised about the reliability of intelligence assessments on Iraq in 2003.

- Libya announced that it would disclose its NBC missile programmes and would become a party to all multilateral arms control and disarmament regimes related to these weapons. The disclosure followed months of negotiations with Libya by British and US officials. Libya's decision suggests that ad hoc coalitions of states acting on specific issues of concern to meet perceived threats can be effective under certain circumstances.

The SARS epidemic: the control of infectious diseases and biological weapon threats

- The rapid spread of severe acute respiratory syndrome (SARS) in early 2003 was perceived by a number of governments as a challenge to their national security because of its impact on their economies and health care systems.

- The disease also contributed to concern about the potential threat posed by the use of infectious disease as a method of warfare, a concern which had been heightened since the 11 September 2001 terrorist attacks in the USA.

- The experience gained from the SARS epidemic has shown that, with strong leadership, scientific experts from around the world can collaborate effectively to identify and contain novel pathogens. The best strategy for fighting future epidemics will be to strengthen the existing global institutions that deal with these events to improve preparedness and openness at the national level and to allocate responsibility for such tasks as patient containment, disease surveillance and monitoring during emergencies.

- Measures have been proposed to link the Biological and Toxin Weapons Convention to specific measures for fighting infectious disease, e.g., the establishment of a global disease surveillance programme.

- Global leadership by the UN and greater international cooperation will be required in order to effectively deal with the security risks posed by infectious disease.

Conventional arms control

- More than 4 years after the signing of the Agreement on Adaptation of the CFE Treaty, the conventional arms control process in Europe remained deadlocked, and the states parties are concerned about the possible adverse effect on regional security.

- Russia's concern with sustaining political influence on its southern perimeter stands in the way of satisfying Western demands under the CFE Treaty and creates a tension with its generally cooperative stance towards the West.

- The efforts of the Organization for Security and Co-operation in Europe to combat terrorism led the participating states to propose new arms control-related initiatives, such as removing surplus munitions and taking action on man-portable air defence systems (MANPADS).

- In Latin America, work progressed on the further elaboration of confidence- and security-building measures within the framework of the Organization of American States (OAS). At the OAS Special Conference on Security, a new concept of security was adopted for the region, emphasizing such new threats as terrorism, organized crime and corruption.

- Four more states acceded to the Treaty on Open Skies and by the end of 2003 four other states were in the process of becoming parties.

- The new Protocol V on Explosive Remnants of War of the CCW Convention and the work on limiting the use and transfer of anti-vehicle mines demonstrate the continued pressure on states to mitigate the consequences for civilians of the use of weapons.

Transfer controls and destruction programmes

- During 2003, international export control regimes focused on the challenge of adaptation to deal with non-state actors, such as terrorists, and to prevent their acquisition of WMD materials and man-portable air defence systems (MANPADS).

- States participating in the Wassenaar Arrangement (WA) conducted the second WA assessment and agreed major changes to the founding document. They pledged to tighten export controls on MANPADS, brokering and equipment that is not included in the WA control lists.

- The Australia Group added 14 human pathogens that could potentially be used in WMD to its Biological Control List. It continued its work to prevent the acquisition of biological or chemical weapons by terrorist groups.

- The EU initiated both a peer review process to evaluate national controls of dual-use exports and the first fundamental review of the EU Code of Conduct on Arms Exports.

- In 2003, governments participating in the G8 Global Partnership Against Weapons and Materials of Mass Destruction eliminated some of the obstacles to the implementation of cooperative threat reduction (CTR) projects.

Multilateral export control regimes and number of participating states as of 1 January 2004

Australia Group	33
Missile Technology Control Regime	33
Nuclear Suppliers Group	40
Wassenaar Arrangement	33
Zangger Committee	35

Withdrawal from arms control treaties

- In 2003 North Korea withdrew from the NPT and in 2001 the USA announced its withdrawal from the ABM Treaty. North Korea invoked the withdrawal clause after having violated the NPT, while the USA invoked the withdrawal clause as a preventive measure to avoid treaty violation when it proceeded with its missile defence programmes.

- The actions taken by the North Korean and US governments are unprecedented in the modern history of international arms control and raise fundamental questions regarding the role of the treaty as a legally binding tool for arms control.

- When North Korea withdrew from the NPT, several states and international organizations expressed regrets, but there was neither a statement from the NPT depositaries nor a resolution adopted by the UN Security Council.

- Reaction was also muted when the USA's withdrawal from the ABM Treaty took effect in 2002. Russia expressed regrets over the USA's action, but it did not openly challenge the arguments presented in support of the unilateral withdrawal.

- These treaty withdrawals could set a future standard and may in a sense 'lower the threshold' for the invocation of a withdrawal clause in order to terminate legally binding relationships. This would in turn go against the interests of stability and predictability in international relations.

Arms control and disarmament agreements and agreements on humanitarian law of armed conflict in force as of January 2004

- 1925* Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (Geneva Protocol)
- 1948* Treaty for Collaboration in Economic, Social and Cultural Matters and for Collective Self-defence among Western European states (Brussels Treaty)
- 1948* Convention on the Prevention and Punishment of the Crime of Genocide (Genocide Convention)
- 1949* Geneva Convention (IV) Relative to the Protection of Civilian Persons in Time of War
- 1954* Protocols to the 1948 Brussels Treaty (Paris Agreements on the Western European Union)
- 1959* Antarctic Treaty
- 1963* Treaty Banning Nuclear Weapon Tests in the Atmosphere, in Outer Space and Under Water (Partial Test Ban Treaty, PTBT)
- 1967* Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the Moon and Other Celestial Bodies (Outer Space Treaty)
- 1967* Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean (Treaty of Tlatelolco)
- 1968* Treaty on the Non-Proliferation of Nuclear Weapons (Non-Proliferation Treaty, NPT)

- 1971 Treaty on the Prohibition of the Emplacement of Nuclear Weapons and Other Weapons of Mass Destruction on the Seabed and the Ocean Floor and in the Subsoil thereof (Seabed Treaty)
- 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (Biological and Toxin Weapons Convention, BTWC)
- 1974 Treaty on the Limitation of Underground Nuclear Weapon Tests (Threshold Test Ban Treaty, TTBT)
- 1976 Treaty on Underground Nuclear Explosions for Peaceful Purposes (Peaceful Nuclear Explosions Treaty, PNET)
- 1977 Convention on the Prohibition of Military or Any Other Hostile Use of Environmental Modification Techniques (Enmod Convention)
- 1977 Protocol I Additional to the 1949 Geneva Conventions, and Relating to the Protection of Victims of International Armed Conflicts
- 1977 Protocol II Additional to the 1949 Geneva Conventions, and Relating to the Protection of Victims of Non-International Armed Conflicts
- 1980 Convention on the Physical Protection of Nuclear Material
- 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, or 'Inhumane Weapons' Convention)

- 1985 South Pacific Nuclear Free Zone Treaty (Treaty of Rarotonga)
- 1987 Treaty on the Elimination of Intermediate-Range and Shorter-Range Missiles (INF Treaty)
- 1990 Treaty on Conventional Armed Forces in Europe (CFE Treaty)
- 1991 Treaty on the Reduction and Limitation of Strategic Offensive Arms (START I Treaty)
- 1992 Treaty on Open Skies
- 1992 The Concluding Act of the Negotiation on Personnel Strength of Conventional Armed Forces in Europe (CFE-1A Agreement)
- 1993 Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction (Chemical Weapons Convention, CWC)
- 1995 Treaty on the Southeast Asia Nuclear Weapon-Free Zone (Treaty of Bangkok)
- 1996 Agreement on Confidence- and Security-Building Measures in Bosnia and Herzegovina, the Federation of Bosnia and Herzegovina and the Republika Srpska
- 1996 Agreement on Sub-Regional Arms Control concerning Yugoslavia (Serbia and Montenegro), Bosnia and Herzegovina, and Croatia (Florence Agreement)
- 1997 Inter-American Convention against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Materials

- 1997 Convention on the Prohibition of the Use, Stockpiling, Production and Transfer of Anti-Personnel Mines and on their Destruction (APM Convention)
- 1999 Inter-American Convention on Transparency in Conventional Weapons Acquisitions
- 1999 Vienna Document 1999 on Confidence- and Security-Building Measures
- 2001 Concluding Document of the Negotiations under Article V of Annex 1-B of the 1995 General Framework Agreement for Peace in Bosnia and Herzegovina
- 2002 Treaty on Strategic Offensive Reductions (SORT)

Treaties not in force as of January 2004

- 1972 Treaty on the Limitation of Anti-Ballistic Missile Systems (ABM Treaty): not in force as of 13 June 2002
- 1993 Treaty on Further Reduction and Limitation of Strategic Offensive Arms (START II Treaty)
- 1996 African Nuclear-Weapon-Free Zone Treaty (Treaty of Pelindaba)
- 1996 Comprehensive Nuclear Test-Ban Treaty (CTBT)
- 1999 Agreement on Adaptation of the 1990 Treaty on Conventional Armed Forces in Europe

Acronyms

ABM	anti-ballistic missile
ARF	ASEAN Regional Forum
ASEAN	Association of South-East Asian Nations
AU	African Union
BMD	ballistic missile defence
BTWC	Biological and Toxin Weapons Convention
BW	biological weapon/warfare
CCW	Certain Conventional Weapons (Convention), also called the 'Inhumane Weapons' Convention
CEMAC	Communauté Économique et Monétaire de l'Afrique Centrale (Economic and Monetary Community of Central Africa)
CFE	(Treaty on) Conventional Armed Forces in Europe
CIS	Commonwealth of Independent States
CPA	Coalition Provisional Authority
CSBM	confidence- and security-building measure
CTBT	Comprehensive Nuclear Test-Ban Treaty
CW	chemical weapon
CWC	Chemical Weapons Convention
DRC	Democratic Republic of the Congo
ECOWAS	Economic Community of West African States
EU	European Union
FYROM	Former Yugoslav Republic of Macedonia
G8	Group of Eight (industrialized nations)
IAEA	International Atomic Energy Agency

ICC	International Criminal Court
ICTR	International Criminal Tribunal for Rwanda
ICTY	International Criminal Tribunal for the Former Yugoslavia
IGAD	Intergovernmental Authority on Development
ISG	Iraq Survey Group
IT	information technology
MANPADS	man-portable air defence systems
MTCR	Missile Technology Control Regime
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological and chemical (weapons)
NEPAD	New Partnership for Africa's Development
NPT	Non-Proliferation Treaty
NSG	Nuclear Suppliers Group
OAS	Organization of American States
OUA	Organization of African Unity
OECD	Organisation for Economic Co-operation and Development
OPCW	Organisation for the Prohibition of Chemical Weapons
OSCE	Organization for Security and Co-operation in Europe
PMF	private military firm
PSI	Proliferation Security Initiative
PTBT	Partial Test Ban Treaty
R&D	research and development
SADC	Southern African Development Community

SARS	severe acute respiratory syndrome
SCO	Shanghai Cooperation Organization
SORT	Strategic Offensive Reductions Treaty
UAV	unmanned air vehicle
UN	United Nations
WA	Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies
WMD	weapons of mass destruction



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