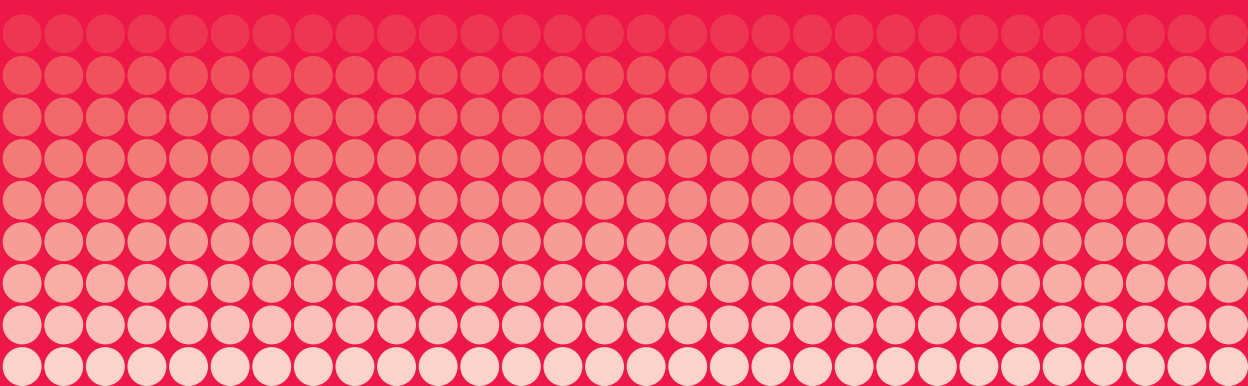


SIPRI YEARBOOK 2013

**Armaments,
Disarmament and
International
Security**

Summary



STOCKHOLM INTERNATIONAL PEACE RESEARCH INSTITUTE

SIPRI is an independent international institute dedicated to research into conflict, armaments, arms control and disarmament. Established in 1966, SIPRI provides data, analysis and recommendations, based on open sources, to policymakers, researchers, media and the interested public.

THE SIPRI YEARBOOK

SIPRI Yearbook 2013 presents a combination of original data in areas such as world military expenditure, international arms transfers, arms production, nuclear forces, armed conflicts and multilateral peace operations with state-of-the-art analysis of important aspects of arms control, peace and international security. The SIPRI Yearbook, which was first published in 1969, is written by both SIPRI researchers and invited outside experts.

This booklet summarizes the contents of *SIPRI Yearbook 2013* and gives samples of the data and analysis that it contains.

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INTRODUCTION. AN ECONOMIST'S PERSPECTIVE ON SECURITY, CONFLICT AND PEACE RESEARCH

TILMAN BRÜCK

The use of physical force is, unfortunately, one of the key elements in the repertoire of human behaviour. Given the persistence and prominence of the intentional use of force, or violence, for human interactions, group behaviour and state actions, it is surprising how limited the degree of understanding of this topic still is.

Many of the policies dealing with potential or actual group-based violence therefore remain imperfect. For example, not one of the Millennium Development Goals (MDGs), which have shaped the development aid discourse since 2000, refers to peace or security. This silence on security, conflict and peace is overdue to be remedied.

The SIPRI Yearbook aims to fill existing knowledge gaps: it provides information on and endeavours to enhance understanding of conflict, peace and security, thereby enabling better policies to be made in the pursuit of a more peaceful, secure and equitable world. Social science has identified at least four further significant fields that exhibit knowledge gaps concerning the strategic use of force by groups in areas with weakened state institutions, including in undemocratic states. These four fields are

- the drivers of insecurity, conflict and fragility;
- trends in security, conflict and peace;
- the consequences of violent conflict and insecurity; and
- interventions and institutions for security and peace.

Taken as a whole, these gaps imply the absence of a comprehensive system of security data tying together the different strands of peace research, which may be the most fundamental and systematic knowledge gap presented thus far.

This lack of understanding greatly complicates peacebuilding and conflict prevention. It makes interventions in conflicts much more ideological, much less an issue of actual common interests and ultimately less successful—leading to self-fulfilling prophecies or ‘narratives’ of failed interventions, seemingly demonstrating the limitations of such actions.

If so many other issues in an individual’s life or in society can be measured, it should be possible to develop metrics for peace and security, both at the individual and the aggregate, national levels. However, measuring perceptions of insecurity, counting the war dead, tallying incidents of weapon smuggling, developing proxies for peace and estimating security indicators is not sufficient. Despite these and many other developments referenced in the SIPRI Yearbook over the years, at least two important challenges remain.

The first challenge is to define the remaining data needs to advance the study of security, conflict and peace. The second will be to develop a ‘global system of security accounts’, which brings together in a consistent framework the many variables measuring flows of security and peace.

The SIPRI Yearbook has for almost five decades provided a narrative on global security developments, building on SIPRI’s unique ability to gather, collate and interpret relevant trends. The time may be right to ask how this narrative can be formalized to further develop knowledge on and policies for security and peace. ●



1. ARMED CONFLICT

In 2011–12 conflict continued to be a major concern for the international community, most notably in the Middle East, western Asia and Africa, but also with increased levels of interstate tension in East Asia. Nevertheless, deaths resulting from major organized violence worldwide remained at historically low levels.

Perhaps the biggest single factor that has shaped the significant global decline in the number of armed conflicts and casualty rates since the end of the superpower confrontation of the cold war has been the dramatic reduction in major powers engaging in proxy conflicts. However, the relationship between states and conflict may be changing once again.

In recent years there has been an increase in the number of intrastate conflicts that are internationalized—that is, that have another state supporting one side or another. Such involvement often has the effect of increasing casualty rates and prolonging conflicts.

Shifting interests and changing capabilities as a result of a weakening of the unipolar post-cold war security balance and the emergence of elements of multipolarity are clearly affecting the overall international order, even while levels of conflict remain relatively low.

Nevertheless, some developments in 2011–12 could be seen as warning signs that if the positive trends in conflict that emerged in recent decades are to be sustained, new ways need to be found to build cooperative international relations to manage the changing global security order.

Armed conflict in the wake of the Arab Spring

Mali, Syria and Yemen were ravaged in 2012 by armed conflicts related in one way or another to the Arab Spring. All three cases point to the importance of understanding the Arab Spring and its repercussions in order to fully grasp regional conflict developments. They are all to some extent defined and influenced by the major political upheavals in 2011.

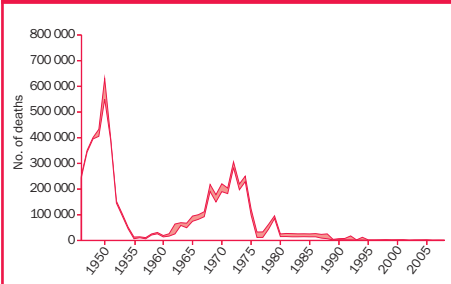
While the chain of events set in motion by the Arab Spring was different in each country, depending on the domestic contexts, Mali, Syria and Yemen illustrate general phenomena central to peace and conflict research: conflict diffusion and conflict escalation.

There is a clear risk that conflict may spread and escalate further in this region. However, just as the present conflicts were difficult to foresee at the outset of the Arab Spring, the future paths of conflict are equally difficult to predict.

The fragile peace in East and South East Asia

More than 30 years of relative peace have contributed to making East and South East Asia the world's main economic growth

BATTLE-RELATED DEATHS IN ARMED CONFLICTS IN EAST AND SOUTH EAST ASIA, 1946–2008



region. Yet the peace seems by no means secure. While states have avoided direct conflict with each other and have stopped supporting insurgent movements on each other's territory, decades-old suspicions linger and economic integration has not been followed up with political integration.

Increasing tensions since 2008 have been underpinned by rapid military build-ups in several countries, notably in East Asia. Meanwhile a number of intrastate armed conflicts—in Myanmar, the Philippines and Thailand—remain active in South East Asia, and some of these have escalated in recent years.

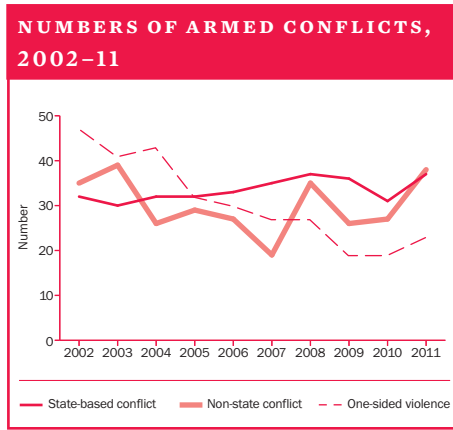
A deepening of peace in the region will require improvements in several bilateral and multilateral relationships, notably between North and South Korea; China and Japan; China and ASEAN; and China and the United States.

Patterns of organized violence, 2002–11

The Uppsala Conflict Data Program (UCDP) maps organized violence around the world according to three categories of violent action: state-based conflict, non-state conflict and one-sided violence.

The overall number of incidents of organized violence resulting in the deaths of at least 25 people in a particular year (the threshold for counting by UCDP) was slightly lower in 2011, at 98, than in 2002, when it stood at 114. This was solely due to a decrease in incidences of one-sided violence; both state-based and non-state conflicts were more prevalent in 2011 than in 2002.

In the 10-year period 2002–11 there were 73 active state-based conflicts, including 37 that were active in 2011; 223 non-state conflicts, including 38 that were active in



2011; and 130 actors recorded as carrying out one-sided violence, including 23 in 2011.

The three categories show markedly different patterns over time. The annual number of non-state conflicts can rise and fall sharply, displaying no obvious trends. In contrast, major changes in the number of state-based conflicts tend to happen slowly. Developments in the incidence of one-sided violence fall somewhere between these two extremes.

The data for 2002–11 illustrate the difficulty of drawing direct links between patterns in the three categories of organized violence. The different categories can certainly influence each other (as shown by the examples of the Arab Spring and East and South East Asia). However, the mechanisms are complex, and understanding them—let alone how to manage them—requires in-depth, case-based study. ●



2. PEACE OPERATIONS AND CONFLICT MANAGEMENT

A total of 53 peace operations were conducted in 2012, one more than in 2011 but still the third lowest number in the period 2003–12. The number of personnel serving with multilateral peace operations worldwide fell by more than 10 per cent in 2012—down by 28 487 to 233 642—as the slight reduction in deployed personnel that started in 2011 gathered pace. The large drop was due to the withdrawal of troops from the International Security Assistance Force (ISAF) in Afghanistan. However, the reductions followed almost a decade of rapid expansion, and the total for deployments was still the third highest since 2003.

Excluding ISAF, deployments increased by 847 personnel. This is the first increase in non-ISAF personnel numbers since 2008. The small increase in the number of operations between 2011 and 2012 suggests that the trend, which has been downwards since 2009, may be beginning to stabilize.

Austerity led some states to be more critical of spending on peace operations and to increase budget constraints on missions in 2012. The United Nations Security Council increasingly imposed benchmarks and indicators to evaluate existing UN missions' effectiveness and efficiency, and linked these to future mandate renewals.

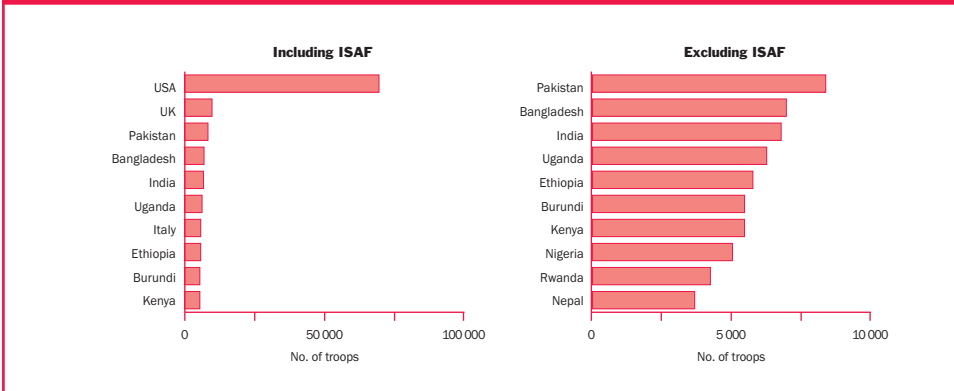
Doubts about the capacity and will for protection of civilians (POC) in peace operations were reinforced in 2012 by the perceived failures of UN operations in Côte d'Ivoire, the Democratic Republic of the Congo (DRC) and South Sudan. However, the problem may lie more in unrealistic mandates and expectations. Divisions in the international community were also

visible in the response to a military coup in Guinea-Bissau, where the African Union (AU), the European Union (EU) and the UN refused to recognize a transitional government set up through a controversial process mediated by the Economic Community of West African States (ECOWAS).

Despite these doubts, divisions and budget constraints, there is no reason to believe that the number of operations will decrease significantly in the near future, and the number of troops deployed outside Afghanistan is in fact likely to grow. How deep the dip in total personnel deployed will be after the drawdown of ISAF and how diffuse the future picture depend on three factors: the depth of future budget cuts in the West and the extent to which they are allowed to affect the military and peacekeeping capacity; the number of troops that are eventually deployed in Mali, the broader Sahel and potentially Syria; and the extent to which countries are willing to put the responsibility to protect (R2P) and POC into practice rather than simply express outrage over the lack of responsiveness.



TOP 10 CONTRIBUTORS OF TROOPS TO MULTILATERAL PEACE OPERATIONS, 2012



Peace operation changes in 2012

Three new missions opened in 2012: the ECOWAS Mission in Guinea-Bissau (ECOMIB), the EU Capacity Building Mission in Niger (EUCAP Sahel Niger) and the UN Supervision Mission in Syria (UNSMIS).

Four missions closed during the year: the EU Police Mission in Bosnia and Herzegovina (EUPM), the UN Integrated Mission in Timor-Leste (UNMIT) and two missions in Syria: the League of Arab States Observer Mission to Syria and UNSMIS, both of which were forced to close due to high levels of violence, which hampered their ability to implement their mandates.

Regional developments

Two operations were active in the Americas in 2012, 8 in Asia and Oceania, 15 in Europe and 11 in the Middle East.

As in previous years, the largest concentration of peace operations was in Africa. There were 17 operations deployed in the region, 9 of them under UN command—a smaller proportion of UN operations than in recent years. The international community took a renewed

interest in Somalia; continued to struggle with issues of impartiality and with POC in the DRC; and decided to retain a 'light footprint' in Libya.

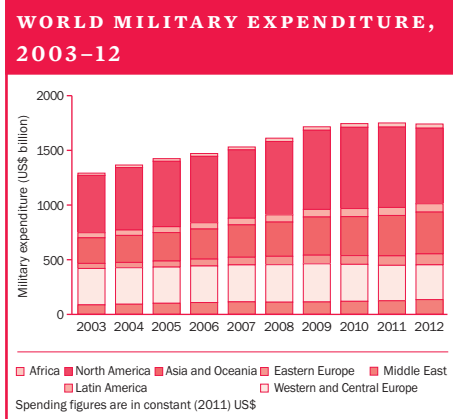
Transition-related developments and planned withdrawals continued for two operations in Asia and Oceania in 2012: ISAF focused on withdrawing by the end of 2014 and UNMIT closed at the end of 2012. ●



3. MILITARY EXPENDITURE

World military expenditure in 2012 is estimated to have been \$1756 billion, representing 2.5 per cent of global gross domestic product (GDP) or \$249 for each person in the world. The total is about 0.4 per cent lower in real terms than in 2011, the first fall since 1998. Nonetheless, the total is higher than in any year between the end of World War II and 2010. The distribution of global spending in 2012 shows what may be the beginnings of a shift from the West to other parts of the world, in particular Eastern Europe and the developing world.

In Western and Central Europe, austerity measures continued to reduce military spending. In Asia and Oceania, while military spending still increased in 2012, it



did so at a slower pace, partly as a result of weaker economic growth in the wake of the 2008 global financial crisis.

In Central and South Asia, North America, Oceania, and Western and Central Europe, increases in the period 2003–2009 were followed by decreases in 2009–12; in sub-Saharan Africa, East Asia, and Latin America, there was a major slowdown in the growth rate, with smaller slowdowns in Eastern Europe and South East Asia. In contrast, the rate of growth accelerated in the Middle East and North Africa. The overall effect on the world total was a lowering in growth in 2010–11, now followed by the fall in 2012.

US Military expenditure

Military spending by the United States declined by 5.6 per cent in real terms in 2012. Together with the 1 per cent fall in 2011, this is the first clear manifestation of an adjustment of US military spending to a post-war situation. However, spending in 2012—\$685.3 billion—was still 69 per cent higher in real terms than in 2001, which marked the beginning of the wars on ‘terrorism’, in Afghanistan and, from 2003, in Iraq.

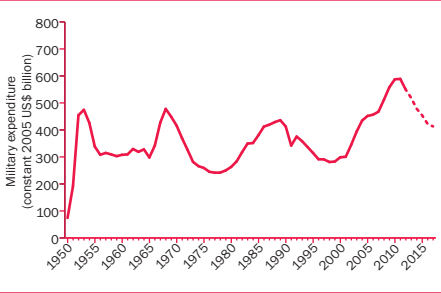
WORLD MILITARY SPENDING, 2012

Region	Spending (\$ b.)	Change (%)
Africa	39.2	1.2
North Africa	16.4	7.8
Sub-Saharan Africa	22.7	-3.2
Americas	782	-4.7
Central America and the Caribbean	8.6	8.1
North America	708	-5.5
South America	65.9	3.8
Asia and Oceania	390	3.3
Central and South Asia	59.8	-1.6
East Asia	268	5.0
Oceania	28.2	-3.7
South East Asia	33.7	6.0
Europe	407	2.0
Eastern Europe	100	15
Western and Central	307	-1.6
Middle East	138	8.3
World total	1 756	-0.4

Spending figures are in current (2012) US\$.



US MILITARY SPENDING, 1950–2017



The future level and trend in US military expenditure was a prominent topic in the political debate in the USA during 2012. However, much of the decision-making process on future military spending was linked and subordinated to the political process of addressing high and rising government debt.

Russian military expenditure

The rising trend in Russia's military expenditure, which started in 1999, accelerated sharply in 2012, with a real-terms increase of 16 per cent. The draft budget for 2013–15 contains plans for a further rise in nominal terms of just over 40 per cent by 2015. The increases come as Russia implements the ambitious 2011–20 State Armaments Programme and undertakes a wide-ranging reform of its armed forces, which many doubt can be implemented fully.

Security spending and violent organized crime in Central America

Central America has had some of the lowest levels of military expenditure as a share of GDP in the world. Following the end of the region's civil wars in the 1990s and in the absence of any external military threats, defence spending in most Central American

countries was constant or falling until at least the mid-2000s. However, in more recent years this trend has reversed, as some of the region's militaries have become involved in the fight against drug cartels and organized crime groups, alongside internal security forces.

The governance of military budgeting and expenditure in Colombia and Indonesia

Colombia's five-decade war against guerrilla and drug trafficking groups has been the primary determinant of the country's level of military expenditure. Despite the long-running civil war and severe problems of human rights abuses by the security forces, Colombia has no recent history of military rule. Transparency in military spending is also fairly good, and has been improving in recent years.

The extensive security sector reform that accompanied Indonesia's transition to democracy since 1998 has largely ended the military's dominant role in politics. However, while the Indonesian armed forces no longer seeks to interfere in politics, democratic civilian control of the military remains weak, and serious gaps in transparency and accountability in relation to military finance, budgeting and procurement remain, although some progress has been made in these areas. ●

THE REPORTING OF MILITARY EXPENDITURE DATA TO THE UN

The number of states reporting to the UN Standardized Instrument for Reporting Military Expenditures has dropped from a high of 81 in 2002 to 49 in 2012. European states had the highest reporting rate in 2012 (27 of 48 states). The worst rates were in Africa (2 of 54 states) and the Middle East (0 of 14 states).



4. ARMS PRODUCTION AND MILITARY SERVICES

The economic downturn following the 2008 global financial crisis and the subsequent austerity measures imposed in North America and Western Europe began to have an impact on sales in the world's arms industry in 2011–12. However, the impact on the industry was not uniform, with varied results for individual company.

Ongoing spending discussions have generated uncertainty in the largest arms and military services market—the United States—and are a key reason companies based there and in Western Europe are seeking increased market shares in other regions, including Asia, Latin America and the Middle East. Individual companies are taking steps to insulate themselves against austerity measures through military specialization, downsizing, diversification, and exports and other forms of internationalization. In some cases company subsidiaries have maintained or increased arms and military services sales outside of the countries in which the parent companies are headquartered.

Companies also use acquisitions to improve the products and services they already deliver. While much attention is paid to acquisitions, a number of divestitures also indicate the ways in which the industry is restructuring to accommodate the austerity environment and changing customer requirements.

Governments use a number of strategies to assist their arms industries outside of their home markets. These include direct government arms export promotion; support for cost reductions; and the use of rhetoric about arms industry employment.

In contrast, countries that have not cut military expenditure see this dilemma as an opportunity to either obtain more favourable terms on arms imports or to develop their own industries.

Cybersecurity and the arms industry

The growing importance of cybersecurity in the military and civil realms has led to noteworthy diversification by arms-production and military services companies into the cybersecurity market.

In 2012 cybersecurity continued to rise on the agendas of the international political and security communities. Revelations about *Flames* and *Stuxnet* made headlines and inspired fresh discussions about the growing use of cyberweapons and cyberwarfare. While there is no reliable evidence, a growing number of countries—including China, Iran, Israel, Russia and the USA—were suspected of using cyberweapons and making offensive interventions across cyberspace.

The rise of cybersecurity on the political and military agenda has evident economic implications. According to one estimate, global public and private cybersecurity spending was approximately \$60 billion in 2011 (equal to 3.5 per cent of world military expenditure). The USA was the biggest spender on cybersecurity, accounting for half of the total, and was the only country where the levels of public and private spending on cybersecurity were almost equal. In the rest of the world, the private sector accounted for the majority of national spending on cybersecurity.

States' reliance on private cybersecurity providers could become a matter of political concern, particularly with regard to democratic transparency, oversight,



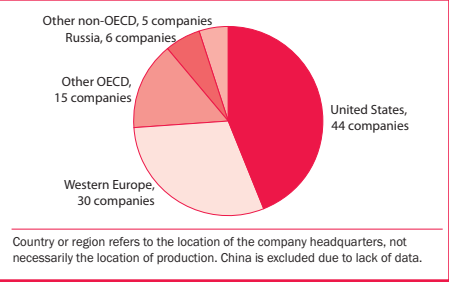
accountability and cost. The provision of services by arms-producing companies—as well as traditional cybersecurity providers—may change the way in which states define and manage their cybersecurity and cyberdefence policies.

The SIPRI Top 100 arms-producing and military services companies

The SIPRI Top 100 lists the world’s 100 largest arms-producing and military services companies (excluding Chinese companies), ranked by their arms sales in 2011. Sales of arms and services by companies in the SIPRI Top 100 totalled \$410 billion in 2011. In comparison with the Top 100 companies in 2010 (which is a slightly different set of companies), the 2011 arms sales represent a 5 per cent decrease in real terms.

The decrease in arms sales by the SIPRI Top 100 companies in 2011 is due to several factors, including the withdrawal from Iraq

COMPANIES IN THE SIPRI TOP 100 FOR 2011, BY COUNTRY



and the United Nations embargo on arms transfers to Libya; programme delays due to austerity-related military spending cuts and related postponements in weapon programme commitments; and the weak US dollar in many countries in 2011. ●

THE 10 LARGEST ARMS-PRODUCING COMPANIES, 2011

Company	Arms sales (\$ m.)	Profit (\$ m.)
1 Lockheed Martin	36 270	2 655
2 Boeing	31 830	4 018
3 BAE Systems (UK)	29 150	2 349
4 General Dynamics	23 760	2 526
5 Raytheon	22 470	1 896
6 Northrop Grumman	21 390	2 118
7 EADS (trans-Europe)	16 390	1 422
8 Finmeccanica (Italy)	14 560	-3 206
9 L-3 Communications	12 520	956
10 United Technologies	11 640	5 347

Companies are US-based, unless indicated otherwise. The profit figures are from all company activities, including non-military sales.



5. INTERNATIONAL ARMS TRANSFERS

The volume of international transfers of major conventional weapons grew by 17 per cent between 2003–2007 and 2008–12. The five largest suppliers in 2008–12—the United States, Russia, Germany, France and China—accounted for 75 per cent of the volume of exports. This is the first time since the end of the cold war that China has ranked among the five largest arms exporters, which had consisted solely of the USA and European states.

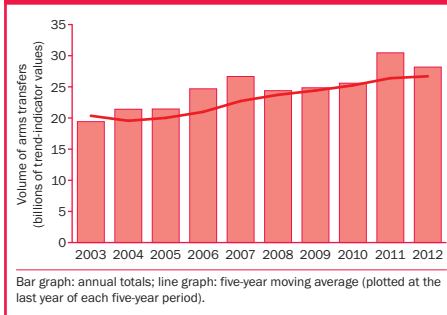
China may represent the vanguard of an increase in the significance of Asian suppliers in the international arms trade, as South Korea is an emerging arms supplier and Japan and Singapore have potential to become major suppliers.

Other significant changes in 2008–12 include the absence from the top five suppliers of the United Kingdom for the first five-year period since 1950; the departure of the Netherlands from the 10 largest suppliers; and the ranking of Ukraine as the ninth largest supplier.

THE MAIN IMPORTERS AND EXPORTERS OF MAJOR ARMS, 2008–12

Exporter	Global share (%)	Importer	Global share (%)
1. USA	30	1. India	12
2. Russia	26	2. China	6
3. Germany	7	3. Pakistan	5
4. France	6	4. South Korea	5
5. China	5	5. Singapore	4
6. UK	4	6. Algeria	4
7. Spain	3	7. Australia	4
8. Italy	2	8. USA	4
9. Ukraine	2	9. UAE	3
10. Israel	2	10. Saudi Arabia	3

THE TREND IN TRANSFERS OF MAJOR ARMS, 2003–2012



One of the consequences of the impact of the financial crisis in the USA and Europe has been the additional pressure to seek new export markets. This has led the USA and European states to streamline bureaucratic procedures and to be more willing to engage in licensed production, technology transfer and cooperative production arrangements.

While SIPRI data on international arms transfers does not represent their financial value, a number of states also publish figures on the financial value of their arms exports. Based on national data, SIPRI estimates that the total value of the global arms trade in 2011 was at least \$43 billion.

Arms transfers to Western and Central Europe

The trend in the volume of major conventional weapons imported by states in Western and Central Europe broadly matches recent trends in military spending in the region. Between 2003–2007 and 2008–12, imports in Western Europe fell by 16 per cent and in Central Europe by 49 per cent. In Western Europe the overall fall in imports was largely driven by declines in imports by Greece and Italy, which fell by 61 per cent and 55 per cent, respectively.



Decisions to delay and cancel import contracts appear to be affecting European states' efforts to boost their own arms exports, which have been stepped up in recent years in order to help offset losses in revenues caused by reduced domestic procurement. The budget cuts of European states may also affect efforts to promote the consolidation of arms production in Europe and the joint development and acquisition of weapon systems.

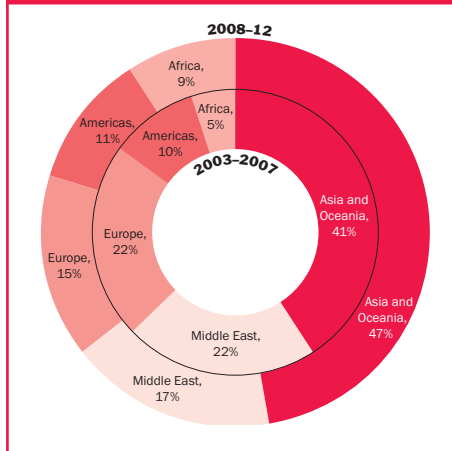
Arms transfers to Syria

As the conflict in Syria intensified in 2012, the international community remained at an impasse on how to respond. It could not agree on how to deal with the conflict in general or with supplying arms to the parties in the conflict in particular. Whereas the European Union, the League of Arab States, Turkey and the United States maintained arms embargoes against the Syrian Government, Iran and Russia continued to supply it with arms. Rebel forces called for foreign military aid and neighbouring countries appeared to supply them with arms or provide funds for arms acquisitions.

Since the start of the conflict in 2011 there has been a sharp division between states that oppose the imposition of United Nations sanctions on Syria and that continue to supply arms to the Syrian Government, and states that have imposed arms embargoes on Syria and called for a UN embargo. Russian officials have been most vocal with regard to the former position and made clear statements that arms supplies were continuing in 2011–12.

The main source of weapons for Syrian rebel groups appears to have been the capture of arms from government troops and arsenals. Small arms and light weapons

RECIPIENT REGIONS OF MAJOR ARMS IMPORTS, 2003–2007 AND 2008–12



were also obtained on the black market in Iraq and Lebanon. Nevertheless, rebel forces repeatedly called in 2012 for governments supporting their cause to supply them with weapons and other military equipment. ●

TRANSPARENCY IN ARMS TRANSFERS

The number of states reporting their arms imports and exports to the United Nations Register of Conventional Arms (UNROCA) decreased from 86 states in 2011 to an all-time low of 52 states in 2012. Africa was the only region that did not record a significant decline in reporting.

An increasing number of governments have published national reports on arms exports. As of January 2013, 35 states had published at least one national report on arms exports since 1990.



6. WORLD NUCLEAR FORCES

At the start of 2013 eight states possessed approximately 4400 operational nuclear weapons. Nearly 2000 of these are kept in a state of high operational alert. If all nuclear warheads are counted—operational warheads, spares, those in both active and inactive storage, and intact warheads scheduled for dismantlement—the United States, Russia, the United Kingdom, France, China, India, Pakistan and Israel possess a total of approximately 17 270 nuclear weapons.

The availability of reliable information about the nuclear weapon states' arsenals varies considerably. France, the UK and the USA have recently disclosed important information about their nuclear capabilities. In contrast, transparency in Russia has decreased as a result of its decision not to publicly release detailed data about its strategic nuclear forces under the 2010 Russian–US New START treaty, even though it shares the information with the USA. China remains highly non-transparent as part of its long-standing deterrence strategy.

Reliable information on the operational status of the nuclear arsenals and capabilities of the three states that have never been party to the 1968 Non-Proliferation Treaty (NPT)—India, Israel and Pakistan—is especially difficult to find. In the absence of official declarations, the available information is often contradictory, incorrect or exaggerated.

The legally recognized nuclear weapon states

All five legally recognized nuclear weapon states, as defined by the NPT—China,

WORLD NUCLEAR FORCES, 2013

Country	Deployed warheads	Other warheads	Total inventory
USA	2 150	5 550	~7 700
Russia	1 800	6 700	8 500
UK	160	65	225
France	~290	~10	~300
China	–	~250	~250
India	–	90–110	90–110
Pakistan	–	100–120	100–120
Israel	–	~80	~80
North Korea	6–8?
Total	~4 400	~12 865	~17 270

All estimates are approximate and are as of January 2013.

France, Russia, the UK and the USA—appear determined to remain nuclear powers for the indefinite future. Russia and the USA have major modernization programmes under way for nuclear delivery systems, warheads and production facilities. At the same time, they continue to reduce their nuclear forces through the implementation of New START and through unilateral force reductions.

Since the nuclear weapon arsenals of Russia and the USA are by far the largest, one result has been that the total number of nuclear weapons in the world has been declining. The nuclear arsenals of the other three legally recognized nuclear weapon states are considerably smaller, but all three states are either deploying new weapon systems or have announced their intention to do so. Of the five legally recognized nuclear weapon states, only China appears to be expanding the size of its nuclear arsenal. In 2012, China conducted a comprehensive series of missile trials consolidating its road-mobile, land-based and submarine-based nuclear deterrent.



Indian and Pakistani nuclear forces

India and Pakistan are increasing the size and sophistication of their nuclear arsenals. Both countries are developing and deploying new types of nuclear-capable ballistic and cruise missile and both are increasing their military fissile material production capabilities.

India's nuclear doctrine is based on the principle of a minimum credible deterrent and no-first-use of nuclear weapons. A meeting in June 2012 of India's Nuclear Command Authority reportedly stressed the need for the 'faster consolidation' of India's nuclear deterrence posture based on an operational triad of nuclear forces.

In 2012 Pakistan conducted a series of missile trials testing most of its nuclear-capable missile types that are currently in operational service or still under development. Pakistan is also expanding its main plutonium-production complex at Khushab, Punjab.

Israeli nuclear forces

Israel continues to maintain its long-standing policy of nuclear opacity. It neither officially confirms nor denies that it possesses nuclear weapons. It is estimated that Israel has approximately 80 intact nuclear weapons, of which 50 are for delivery by Jericho II medium-range ballistic missiles and 30 are gravity bombs for delivery by aircraft. The operational status of the longer-range Jericho III ballistic missile is unknown. There was renewed speculation in 2012 that Israel may also have developed nuclear-capable submarine-launched cruise missiles.

North Korea's military nuclear capabilities

North Korea maintains a secretive and highly opaque military nuclear programme.

There is no public information to verify that it possesses operational nuclear weapons. However, in January 2012 the US Director of National Intelligence assessed that North Korea had produced nuclear weapons, although he gave no estimate of the size of the country's weapon inventory.

During 2012 several non-governmental reports concluded, based on the analysis of satellite imagery and other evidence, that North Korea was making technical preparations for carrying out a third underground nuclear test in tunnels at its nuclear test site, Punggye-ri, in the north-east of the country. ●

GLOBAL STOCKS OF FISSILE MATERIALS, 2012

Materials that can sustain an explosive fission chain reaction are essential for all types of nuclear explosive, from first-generation fission weapons to advanced thermonuclear weapons. The most common of these fissile materials are highly enriched uranium (HEU) and plutonium.

For their nuclear weapons, China, France, Russia, the UK and the USA have produced both HEU and plutonium; India, Israel and North Korea have produced mainly plutonium; and Pakistan mainly HEU. All states with a civilian nuclear industry have some capability to produce fissile materials.

The International Panel on Fissile Materials compiles information on global stocks of fissile materials.

	Global stocks, 2012
Highly enriched uranium	-1285 tonnes*
Separated plutonium	
Military stocks	-224 tonnes
Civilian stocks	-264 tonnes

* Not including 92 tonnes to be blended down.



7. NUCLEAR ARMS CONTROL AND NON-PROLIFERATION

Nuclear proliferation concerns in Iran

In 2012 the nuclear programme of Iran remained at the centre of international concerns about the spread of nuclear weapons. Little progress was made towards resolving the long-running controversy over the scope and nature of the programme. The resumption of talks between Iran and the five permanent members of the United Nations Security Council plus Germany (the 'P5+1' states) failed to break the deadlock over Iran's non-compliance with the Security Council's demands that Iran suspend all uranium enrichment and other sensitive nuclear fuel cycle activities.

Iran and the International Atomic Energy Agency (IAEA) were also unable to agree on a framework plan for addressing the IAEA's concerns that Iran had pursued nuclear activities with possible military dimensions, in contravention of its commitments under the 1968 Non-Proliferation Treaty (NPT). The impasse led to renewed calls to expand the IAEA's legal powers to investigate NPT parties suspected of violating their treaty-mandated safeguards agreements, even beyond those set out in the Model Additional Protocol.

The lack of progress in these two separate but closely related sets of talks fuelled speculation that some states—specifically, Israel or the United States—might prioritize extra-legal measures, or even resort to the preventive use of military force, to deal with Iran's suspected nuclear weapon programme. The renewed attention to military options raised

further doubts about the efficacy of international legal approaches, in particular the use of punitive economic sanctions, in dealing with suspected or known cases of states violating important arms control treaty obligations and norms.

North Korea's nuclear programme

The Six-Party Talks on the denuclearization of North Korea remained suspended in 2012, while North Korea reaffirmed its status as a nuclear weapon-possessing state. In an apparent breakthrough, North Korea agreed to suspend its nuclear and ballistic missile programmes in exchange for humanitarian assistance from the USA. However, the deal soon broke down when North Korea launched a satellite-carrying rocket that the USA and its allies in the region described as a disguised ballistic missile test.

The launch, conducted on 13 April 2012 in the presence of international observers, was a widely publicized failure. The three-stage Unha 3 rocket exploded shortly after lift-off. North Korea's decision to proceed with the launch elicited a wave of international criticism.

Developments in North Korea's nuclear and ballistic missile programmes in 2012 suggested that the new North Korean leadership under Kim Jong Un would prioritize the country's 'military-first' policy underpinned by advances in its nuclear and ballistic missile capabilities. The year ended with deepening pessimism in North East Asia about the prospects for restarting multilateral negotiations aimed at inducing North Korea to give up its nascent nuclear arsenal in exchange for international assistance.



NATO and non-strategic nuclear weapons

The issue of the future of non-strategic (tactical) nuclear weapons in Europe came to the fore with the completion by the North Atlantic Treaty Organization (NATO) of its Defence and Deterrence Posture Review (DDPR) in 2012. The DDPR reaffirmed that nuclear weapons remained a core component of NATO's overall capabilities for deterrence and defence, as outlined in NATO's 2010 Strategic Concept, and did not recommend any force posture changes regarding US nuclear weapons stationed in Europe. At the same time, by saying that NATO would consider options to further reduce non-strategic nuclear weapons if Russia undertook reciprocal measures, the DDPR left open the possibility of extending nuclear arms control measures beyond the 2010 Russian-US New START treaty.

The prospects for successful negotiated reductions in non-strategic nuclear weapons will require the USA, together with its NATO allies, and Russia to modify what were, in 2012, incompatible positions. At the end of the year there was no indication that such modifications would be forthcoming.

Measures to combat nuclear terrorism

In 2012 the risks of nuclear terrorism and the illicit diversion of nuclear and radioactive materials continued to be discussed at the highest political level. In March, 53 heads of state and government gathered at the Nuclear Security Summit in Seoul, South Korea, for a meeting aimed at strengthening legal and regulatory arrangements for securing nuclear materials and facilities worldwide.

The leaders reviewed implementation of the voluntary commitments made at the

2010 Washington Nuclear Security Summit and issued a communiqué identifying priority areas for increasing the security of nuclear and radiological materials. They also considered the relationship between nuclear safety and security in the light of the accident in 2011 at the nuclear power plant in Fukushima, Japan.

The leaders agreed to convene a third summit meeting, in the Netherlands in 2014, amid discussions about how to sustain nuclear security cooperation. The main contribution of the nuclear security summits has been to focus high-level political attention on the need to implement programmes and projects that have been in development for many years. While the high-level meetings increased the probability that agreed targets would be met prior to the gathering of heads of state and government, future summits may bring diminishing returns as the focus of discussions moves from agreement on broad objectives to more technical issues and specific projects. ●



8. REDUCING SECURITY THREATS FROM CHEMICAL AND BIOLOGICAL MATERIALS

Chemical weapon arms control and disarmament

Russia and the United States were unable to meet the final April 2012 deadline for completing the destruction of their declared chemical weapon stockpiles under the 1993 Chemical Weapons Convention (CWC). The Organisation for the Prohibition of Chemical Weapons (OPCW) inspected Libya's previously undeclared chemical weapons. Elsewhere, the destruction of old and abandoned chemical weapons, including those abandoned by Japan in China during World War II, continued.

During 2012 the states parties to the CWC also discussed the future nature and focus of the regime in the lead-up to the Third CWC Review Conference, held in April 2013. The verification of the destruction of chemical weapons nevertheless remained the primary operational focus of the regime.

OLD AND ABANDONED CHEMICAL WEAPONS

As of December 2012,

- 3 countries had declared that abandoned chemical weapons (ACW) are present on their territories
- 15 countries had declared that they have possessed old chemical weapons (OCW) since the CWC's entry-into-force
- OCW inspections had been carried out in Belgium, Germany, Italy, Japan and the UK
- approximately 75 per cent of the ACW that have been recovered thus far in China had been destroyed

DESTRUCTION OF CHEMICAL WEAPONS

As of 31 October 2012,

- Iraq, Libya, Russia and the USA had yet to complete destruction of their chemical weapon stockpiles
- 54 258 tonnes (78 per cent) of category 1 chemical weapons had been destroyed
- 13 states had declared 70 former chemical production facilities
- 43 of these facilities had been destroyed and 21 converted to peaceful purposes

No new states joined the CWC in 2012. As of 31 December, 188 states had ratified or acceded to the convention; 2 states had signed but not ratified it; and 6 states had neither signed nor ratified it.

Biological weapon arms control and disarmament

During 2012 the states parties to the 1972 Biological and Toxin Weapons Convention (BTWC) held the first two of a series of four intersessional meetings of experts and parties agreed by the 2011 Seventh BTWC Review Conference. The exercise consists of an exchange of views and information on capacity-building measures, on the implications of developments in science and technology for the regime, on effective national implementation of the convention's provisions, and on enhancing transparency and confidence among the parties.

The BTWC Implementation Support Unit (ISU) began implementing a database project to match offers and requests for assistance and cooperation. In comparison to the CWC, however, the regime's institutional capacity remained limited.

One new party joined the convention in 2012: the Marshall Islands. An additional



12 states had signed but not ratified the convention as of 31 December 2012.

Allegations of chemical and biological weapon programmes

Allegations of chemical and biological weapon programmes and use continued in 2012 with little official or otherwise authoritative reporting to clarify them. Many of these allegations concerned suspected Syrian chemical weapon stockpiles and fears that such stocks would be used in that country's civil war.

A Syrian Government official responded to the numerous reports of suspected chemical weapon stockpiles by stating that the country possesses such weapons but would only use them against outside forces, not against its own people. A number of states, including Israel, Jordan, Turkey, the United Kingdom and the USA, reportedly consulted on options to monitor and secure suspected chemical weapon sites in Syria in order to prevent use of these weapons or their falling into the possession of third parties. The United Nations Secretary-General and the Director-General of the OPCW conferred on the political and technical implications of the possible use of Syrian chemical weapons under their respective mandates.

In addition, new information emerged on the methods used by the Japanese cult Aum Shinrikyo in its 1995 sarin attack on the Tokyo underground and a definitive account of the Soviet biological weapon programme was published.

Oversight of dual-purpose research in the life sciences

During 2012 the security and life sciences communities debated the appropriateness of publishing research, completed in 2011,

on the transmissibility of avian influenza among ferrets. The underlying concern was that such research could be misapplied for hostile purposes, such as by changing avian influenza virus to a form suitable for aerosol transmission between humans.

A specially convened World Health Organization (WHO) committee formed to review the work of two research groups—based in the Netherlands and the USA, respectively—also discussed the issue. The Netherlands considered imposing export controls on findings in the research methodology section of the Dutch-based group, but then abandoned the plan. The US National Science Advisory Board for Biosecurity (NSABB) reversed its previous opposition to publication, stating that the researchers had modified the draft findings in a manner that allowed it to support publication. Both papers were published in 2012. ●



9. CONVENTIONAL ARMS CONTROL AND MILITARY CONFIDENCE BUILDING

In 2012 confidence- and security-building measures (CSBMs)—that is, openness and restraint to provide reassurance that military capabilities will not be used for political gain—made a valuable contribution to reducing tensions and preventing the escalation of incidents in several regions of the world.

As well as helping to prevent specific incidents from escalating into something worse, CSBMs are being developed more broadly in several regions as a positive tool to enhance cooperative relations among states based on partnership, mutual reassurance and transparency.

While CSBMs cannot shoulder the burden of promoting cooperative security alone, in several regions they make a useful contribution to promoting and fostering stability and creating the conditions for positive growth and development.

As regards arms control—binding commitments to self-restraint in the structure, equipment or operations of armed forces—the situation in 2012 was less encouraging.

Humanitarian arms control initiatives

In the area of humanitarian arms control (in which states forgo capabilities that have indiscriminate or inhumane effects, regardless of their military utility), the pace of implementation of existing agreements remains slow and uneven.

During 2012 the main issue for the parties to the 1981 Certain Conventional Weapons (CCW) Convention was the possibility of extending the treaty to cover mines other than anti-personnel mines



(MOTAPM). A consensus among CCW parties on MOTAPM has proved elusive, but their views appear closer on this issue than on cluster munitions.

The CCW Convention's Protocol V on explosive remnants of war (ERW) aims to reduce the impact on civilians of unexploded and abandoned munitions. There has been a steady growth in membership: of the 115 states party to the CCW Convention at the end of 2012, 81 were also party to Protocol V. Membership of Protocol V remains sparsest in Africa, the Middle East and South East Asia.

Ten states ratified the 2008 Convention on Cluster Munitions (CCM) in 2012. This suggests that, while membership is steadily increasing, the CCM did not experience an upsurge of new membership in 2012 after the failure of the parties to the CCW Convention to agree on measures related to cluster munitions in 2011.

Small arms control in Africa

Over the past decade a framework for the control of small arms and light weapons (SALW) in Africa has gradually been created. Four arms control agreements have been adopted, mainly under the aegis of subregional economic communities:

- the 2001 Protocol on the Control of Firearms, Ammunition and other



related Materials in the SADC Region;

- the 2004 Nairobi Protocol for the Prevention, Control and Reduction of SALW in the Great Lakes Region and the Horn of Africa
- the 2006 ECOWAS Convention on SALW, their Ammunition and Other Related Materials; and
- the 2010 Central African Convention for the Control of SALW, their Ammunition, Parts and Components that can be used for their Manufacture, Repair and Assembly (Kinshasa Convention).

Despite the strong subregional focus on SALW control in Africa, some key external partners, such as the European Union, nevertheless still prefer to conduct their strategic dialogue with African states at the continent level. Given the subregional instruments' current dependency on external funds and the difficulty of reaching consensus on SALW-related issues in the African Union, finding a way to improve collaboration between subregional instruments and external partners will be crucial in order to ensure implementation.

Conventional arms control and CSBMs in Europe

In 2012 the difficulties in agreeing on further progress on conventional arms control in Europe reported in 2011 continued. However, at the end of 2012 Ukraine, the incoming chair of the Organization for Security and Co-operation in Europe (OSCE) for 2013, initiated a process that might provide a future framework for developing a new approach to conventional arms control.

At the OSCE Ministerial Council in December 2012, foreign ministers agreed to

launch a process labelled 'Helsinki+40', one of the objectives of which is to develop practical measures to implement the commitment made in the 2010 Astana Commemorative Declaration to overcome the impasse in conventional arms control in Europe and open the way for negotiations on a new agreement. The measures should be elaborated by 2015—four decades after the signing of the Helsinki Final Act.

CSBMs in Asia and the Americas

Asia is a region with a significant number of bilateral and subregional tensions, unresolved conflicts that periodically lead to deadly incidents, and disputes over land and sea borders. Nevertheless, although several Asian initiatives include CSBMs as part of their agenda, there is no strong mandate or institutional structure supporting CSBMs in Asia.

Unlike Asia, border disputes in the Americas have not led to tensions that have required a military response. The region faces no major external military threat and in the past two decades it has developed an array of CSBMs at both the regional and subregional levels. For example, the members of the Union of South American Nations (Unión de Naciones Suramericanas, UNASUR) continued to implement measures agreed in 2011 and to elaborate new CSBMs. ●



10. DUAL-USE AND ARMS TRADE CONTROLS

Governments are increasingly aware that controlling flows of conventional arms and items that can be used for both civilian and military purposes—dual-use items—is a complex process involving regulation of exports and associated brokering, transit, trans-shipment and financing activities. This complexity requires effort and cooperation from countries around the world. States, therefore, engage in various multilateral mechanisms and continually create or adapt instruments to address these challenges.

Negotiations on an arms trade treaty

The July 2012 United Nations conference on an arms trade treaty (ATT) concluded without agreement on a draft treaty text. Several states, in particular Russia and the United States, called for more time for UN member states to discuss these issues.

Two issues proved particularly challenging for ATT negotiators in 2012: finding an agreeable compromise on how to incorporate respect for obligations under international humanitarian and human rights law alongside state security prerogatives for arms transfers; and defining the scope of items to be subject to transfer controls.

The final conference on the ATT took place in March 2013, with UN member states given a final chance to achieve consensus on an international treaty to establish the ‘highest possible common international standards for the transfer of conventional arms’.

Arms embargoes, financial sanctions and other restrictive measures

During 2012, 13 UN arms embargoes, 19 European Union (EU) arms embargoes, and 1 League of Arab States arms embargo were in force. No new arms embargo was imposed or lifted in 2012. The UN Security Council failed to agree an arms embargo against Syria.

A variety of other restrictive measures have been used to prevent proliferation of nuclear, biological and chemical weapons, and missile systems for their delivery. These measures include restrictions on

MULTILATERAL ARMS EMBARGOES IN FORCE, 2012

United Nations (13 embargoes)

- Al-Qaeda and associated individuals and entities • Democratic Republic of the Congo (NGF) • Côte d'Ivoire • Eritrea • Iran • Iraq (NGF) • North Korea • Lebanon (NGF)
- Liberia (NGF) • Libya (NGF) • Somalia
- Sudan (Darfur) • Taliban

European Union (19 embargoes)

Implementations of UN embargoes (9):

- Al-Qaeda, the Taliban and associated individuals and entities • Democratic Republic of the Congo (NGF) • Côte d'Ivoire
- Eritrea • Iraq (NGF) • Lebanon (NGF)
- Liberia (NGF) • Libya (NGF) • Somalia (NGF)

Adaptations of UN embargoes (3): • Iran

- North Korea • Sudan

Embargoes with no UN counterpart (7):

- Belarus • China • Guinea • Myanmar
- South Sudan • Syria • Zimbabwe

ECOWAS (1 embargo)

- Guinea

Arab League (1 embargo)

- Syria

NGF = non-governmental forces.



trade, financial sanctions and restrictions on travel. Restrictions on trade can be either general or targeting particular goods.

Financial sanctions can include, for example, the freezing of funds or economic resources, prohibitions on financial transactions or requirements for prior approval before entering into such transactions, and restrictions on the provision of export credits or investment funds. Examples of restrictions on travel include flight bans and restrictions on the admission of named individuals.

In 2012 an important understanding was reached among the states that play a central role in managing the international financial system on how to use financial sanctions to support non-proliferation. In addition, new and expanded measures were adopted to attempt to bring about a change in the national nuclear policy of Iran.

Export control regimes

Four informal, consensus-based export control regimes—the Australia Group, the Missile Technology Control Regime, the Nuclear Suppliers Group and the Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-use Goods and Technologies—work within their specific fields to strengthen trade control cooperation.

One cross-regime trend throughout 2012 involved ongoing efforts to expand the scope of discussions and guidelines about activities and items to be subject to controls, in particular regarding brokering, transit and trans-shipment, intangible transfers of technology, and proliferation financing. Although export controls remain the regimes' main organizing principle, associated trade activities are

increasingly becoming the focus of control efforts.

Export control developments in the European Union

During 2012 the ongoing review of the EU Common Position defining common rules governing control of exports of military technology and equipment led to no major developments regarding EU-wide rules for the control of arms exports, brokering, trans-shipment and transit. However, EU member states implemented a new regulation governing intra-community trade in defence goods.

The range of dual-use items subject to control was expanded in line with agreements in the multilateral control regimes, albeit with a substantial delay due to the new requirement to involve the European Parliament. The Parliament's efforts to expand the coverage of EU controls on dual-use items to include transfers of surveillance technology formed part of a range of initiatives in this area in the wake of the events of the Arab Spring in 2011 and 2012. The Parliament is thus emerging as a new actor shaping dual-use trade controls in the EU. ●



ANNEXES

Arms control and disarmament agreements in force, 1 January 2013

- 1925 Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare (1925 Geneva Protocol)
- 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; and 1977 Protocols I and II Relating to the Protection of Victims of International and Non-International Armed Conflicts
- 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)
- 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)
- 1992 Treaty on Open Skies
- 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 African Nuclear-Weapon-Free Zone Treaty (Treaty of Pelindaba)
- 1996 Agreement on Sub-Regional Arms Control (Florence Agreement)



CHRONOLOGY 2012, SELECTED EVENTS

- 1 Jan. The Atomic Energy Organization of Iran announces that Iran has manufactured a nuclear fuel rod.
- 10 Feb. Sudan and South Sudan sign a memorandum of understanding on non-aggression and cooperation.
- 22 Mar. Malian President Amadou Toumani Touré is overthrown in a coup.
- 12 Apr. A military coup d'état ousts the civilian government of Guinea-Bissau.
- 1 May Afghanistan and the USA sign a strategic partnership agreement on their relationship after 2014.
- 22 June A Turkish F-4 combat aircraft is shot down by Syrian forces.
- 2 July The 2012 UN Conference on the Arms Trade Treaty begins.
- 2 Aug. Kofi Annan resigns as the UN-Arab League Joint Special Envoy for Syria, and is replaced by Lakhdar Brahimi.
- 11 Sep. Japan announces that it has bought 3 of the disputed Senkaku (Diaoyu) Islands in the South China Sea.
- 10 Oct. A Syrian passenger aircraft is intercepted and forced to land at Ankara Airport.
- 29 Nov. The UN General Assembly adopts a resolution granting Palestine non-member state status at the UN.
- 12 Dec. North Korea successfully launches a Unha 3 rocket.

- 1997 Inter-American Convention Against the Illicit Manufacturing of and Trafficking in Firearms, Ammunition, Explosives, and Other Related Materials (CIFTA)
- 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
- 2006 ECOWAS Convention on Small Arms, Light Weapons, their Ammunition and Other Related Materials
- 2006 Treaty on a Nuclear-Weapon-Free Zone in Central Asia (Treaty of Semipalatinsk)
- 2008 Convention on Cluster Munitions
- 2010 Treaty on Measures for the Further Reduction and Limitation of Strategic Offensive Arms (New START)
- 2011 Vienna Document 2011 on Confidence- and Security-Building Measures

Agreements not yet in force, 1 January 2013

- 1996 Comprehensive Nuclear-Test-Ban Treaty (CTBT)
- 1999 Agreement on Adaptation of the CFE Treaty
- 2010 Central African Convention for the Control of Small Arms and Light Weapons, Their Ammunition and All Parts and Components That Can Be Used for Their Manufacture, Repair and Assembly (Kinshasa Convention)

Security cooperation bodies

Notable changes in 2012 include Mongolia becoming a participating state of the Organization for Security and Co-operation in Europe (OSCE) and Guinea-Bissau's suspension from the African Union (AU).

Mexico was admitted to the Nuclear Suppliers Group and to the Wassenaar Arrangement, and Belarus joined the Zangger Committee. No states joined the other strategic trade control regimes—the Australia Group and the Missile Technology Control Regime. ●



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- *Reducing security threats from chemical and biological materials*, highlighting the oversight of dual-purpose research in the life sciences
- *Conventional arms control and military confidence building*, with studies on small arms control in Africa, and confidence- and security-building measures in Asia and the Americas
- *Dual-use and arms trade controls*, with accounts of the arms trade treaty negotiations, sanctions and developments in multilateral export control regimes

as well as extensive annexes on arms control and disarmament agreements, international security cooperation bodies, and events during 2012.