



NATO  
OTAN

# Weapons of mass destruction



# NATO briefing

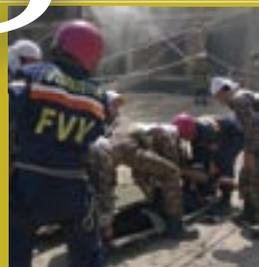
An  
evolving  
threat



A broad  
range of  
activities



Cooperating  
with  
Partners



## Countering weapons of mass destruction

NATO continues to  
tailor its policies and  
activities to the  
changing security  
environment

**W**eapons of mass destruction (WMD) pose serious risks and challenges to the Alliance and to international security. NATO's primary aim is to prevent the proliferation of these weapons or, should it occur, to reverse it through diplomatic means. NATO Allies have also taken a comprehensive set of practical initiatives to defend their populations, territory and forces against potential WMD threats.

A number of factors have altered the nature of the threat of weapons of mass destruction in the 21st century. NATO continues to tailor its policies and activities to the changing security environment.

The Alliance stepped up its activities in this area in 1999 with the launch of the Weapons of Mass Destruction Initiative. This led to the establishment of a WMD Centre at NATO Headquarters the following year. ►



In 2002, a number of initiatives were taken to improve the ability of NATO forces to operate in environments contaminated by chemical, biological, radiological and nuclear (CBRN) material. A Multinational CBRN Defence Battalion – designed to respond to and manage the consequences of the release of any CBRN agent – reached full initial operational capability in June 2004.

Improving civil preparedness and consequence-management capabilities in the event of an attack involving CBRN agents is another key area of NATO's WMD-related activities. Scientific cooperation is also being promoted.

The Alliance continues to strongly support various arms control and non-proliferation regimes to prevent the spread and use of weapons of mass destruction and their means of delivery.

Countering the proliferation of weapons of mass destruction is a global endeavour. NATO is part of a network of cooperative relationships with partners that are working together to this end, through dialogue and a range of practical activities. ■

## An evolving threat

**The use or threatened use of weapons of mass destruction significantly influenced the security environment of the 20th century and will also impact international security in the foreseeable future. Strides in modern technology and scientific discoveries have opened the door to ever more destructive weapons.**

The First World War bore witness to the first chemical weapons attacks of the 20th century. Research on biological warfare agents began in earnest after this war and several nations continued research and development during the Cold War. In the past two decades, the tactical deployment of such weapons by some states has suggested a resurgence of interest in their development.

The proliferation of biological agents as potential weapons is widely recognized as a growing international security problem, both for inter-state conflict and as a potential dimension

of terrorism. Recent advances in biotechnology, if misused, may pose significant dangers. The anthrax attacks in the United States in 2001 demonstrated the disruptive and destructive characteristics of biological agents.

The theories of Einstein and other eminent contributors to 20th century physics provided the basis for the development of nuclear science. Research towards nuclear energy began in the 1930s and nuclear weapons were used during the Second World War. During the Cold War, use of nuclear weapons was prevented by the prospect of massive retaliation.

The nuclear arms race slowed in the early 1970s following the negotiation of the first arms control treaties.

The improved security environment of the 1990s enabled nuclear weapon states to dramatically reduce their nuclear stockpiles. However, the proliferation of knowledge and technology has enabled other nations to build their own nuclear weapons, extending the overall risks to new parts of the world.

In a practical sense, the Second World War marked the beginning of the ballistic missile age. Closely linked to space exploration technology, missile research and development is often indistinguishable from work on space-launch vehicles. Missiles of different types can potentially be armed with a WMD warhead.

Such missiles can be launched either from sea or air platforms, or from fixed and mobile land-based launchers. Ballistic missiles – missiles aimed at a predetermined target that follow a sub-orbital, ballistic flight path – have emerged as the weapon systems of choice for a growing number of states. This increases the risk of instability and potential confrontation.

Today, the world faces the continuing risk of the proliferation of weapons of mass destruction and the means to deliver them, as well as the potential risk of the use of such weapons by some states or by non-state actors.

An added challenge is the fact that modern technology can often be used for civilian as well as military purposes. Dual-use items include various categories of chemical precursors, biological agents and toxins (which can be used for legitimate research purposes), radiological material, some chemical, biological and nuclear production equipment and facilities, as well as some industrial goods and products. Various measures have been developed to prevent dual-use technology from being improperly used, including export control regimes and end-use licensing. ■



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## A broad range of activities

**The North Atlantic Council, the principal decision-making body within NATO, has overall authority on Alliance policy and activity in countering WMD proliferation.**

The Council is supported by a number of NATO committees and groups, which provide strategic assessments and policy advice and recommendations. They include the Senior Political-Military Group on Proliferation and the Senior Defence Group on Proliferation.

At the Washington Summit in April 1999, Allied leaders launched a Weapons of Mass Destruction Initiative to address the risks posed by the proliferation of these weapons and their means of delivery. The initiative was designed to promote understanding of WMD issues, develop ways of responding to them, improve intelligence and information

sharing, enhance existing Allied military readiness to operate in a WMD environment and counter threats posed by these weapons.

To support this initiative, the Weapons of Mass Destruction Centre was established at NATO Headquarters in May 2000. Its role is to improve coordination of WMD-related activities, as well as strengthen consultations on non-proliferation, arms control, and disarmament issues. The Centre also supports defence efforts to improve the preparedness of the Alliance to respond to any potential threats posed by weapons of mass destruction and their means of delivery. ►

## No NATO member country has a chemical or biological weapons programme

### Improving CBRN defence capabilities

To improve its defence against a WMD threat, NATO has taken five nuclear, biological and chemical defence initiatives. These were endorsed by Allied leaders at the Prague Summit in November 2002.

These initiatives emphasize multinational participation and the rapid fielding of enhanced capabilities, and include:

- a Joint Assessment Team that can assess the effects of a nuclear, biological or chemical event, advise NATO commanders on how to deal with it and allow them to “reach back” to national experts for technical advice;
- a deployable analytical laboratory which can be transported rapidly and easily into theatre to investigate, collect and analyze samples for identification of nuclear, biological or chemical agents;
- a nuclear, biological and chemical defence virtual stockpile shared among Alliance members consisting of items which can be moved quickly into theatre;
- enhanced nuclear, biological and chemical training; and
- a disease-surveillance system which is nearing final operational capability and will facilitate the collection of information on any outbreak of disease, fuse data and other information sources and alert NATO commanders of unusual biological outbreaks.

NATO continues to create and improve standard agreements that will govern Allied operations in a CBRN environment. These agree-

ments guide all aspects of preparation, ranging from standards for disease surveillance to rules for restricting troop movements. Such standards combine with national force goals regarding protective and detection equipment, thereby ensuring interoperability of Alliance forces.

In addition, the Alliance conducts CBRN defence training and exercises as well as senior-level seminars. These are designed to test interoperability and prepare NATO leaders and forces for operations in an environment involving nuclear, biological or chemical weapons.

#### *Combined Joint CBRN Defence Task Force*

The Multinational CBRN Defence Battalion that achieved full operational capability in 2004 has been succeeded by a Combined Joint CBRN Defence Task Force. It is designed to respond to and manage the consequences of the release of any CBRN agent. The Task Force is led by individual Allies usually on a six-month rotational basis. Under normal circumstances, it would operate within the NATO Response Force, which is a joint, multinational force (of up to 25,000 personnel) designed to respond rapidly to emerging crises across the full spectrum of Alliance missions. However, it may also be committed to other tasks, including helping civilian authorities in NATO member countries. For example, a task force from the Multinational CBRN Defence Battalion was deployed to assist the Greek authorities in providing security during the 2004 Olympic and Paralympic Games in Athens.



### *Joint Centre of Excellence on CBRN Defence*

NATO Allies activated a Joint CBRN Defence Centre of Excellence in Vyskov, the Czech Republic, in July 2007. The Centre offers recognized expertise and experience to the benefit of the Alliance, especially in support of its transformation process. It provides opportunities to improve interoperability and capabilities by enhancing multinational education, training and exercises; assisting in concept, doctrine, procedures and standards development; and testing and validating concepts through experimentation.

## **Disarmament, arms control and non-proliferation**

Disarmament, arms control and non-proliferation are essential tools in preventing the use of weapons of mass destruction, and the spread of these weapons and their delivery systems. The Alliance continues to emphasize the importance of abiding by and strengthening existing multilateral non-proliferation and export control regimes, as well as international arms control and disarmament agreements.

NATO Allies have made substantial reductions in both the size and diversity of their nuclear capabilities. No NATO member country has a chemical or biological weapons programme. Additionally, Allies are committed to destroy any stockpiles of chemical agents and have supported a number of Partner countries in such activity.

A series of declarations and decisions on practical activities made at

the Istanbul Summit in June 2004 – which have since been reaffirmed at the Riga Summit in November 2006 and at the Bucharest Summit in April 2008 – have set the course for the Alliance in the fields of disarmament, arms control and non-proliferation.

Allied leaders are committed to reinforcing the Nuclear Non-Proliferation Treaty. They also underline the importance of related international agreements, including the Biological and Toxin Weapons Convention, the Chemical Weapons Convention and the The Hague Code of Conduct against the Ballistic Missile Proliferation.

The Alliance strongly supports UN Security Council Resolution 1540, which calls on all states to establish effective national export controls, to adopt and enforce laws to criminalize proliferation, to take cooperative action to prevent non-state actors from acquiring weapons of mass destruction, and to end illicit trafficking in such weapons and related materials. The Alliance has also welcomed the G-8 Action Plan on Non-Proliferation, adopted in June 2004.

Furthermore, the Allies are resolved to strengthen common efforts to reduce and safeguard nuclear and radiological material, and to prevent and contain the proliferation of weapons of mass destruction and their means of delivery.

The Allies also underscore their strong support for the aims of the US-sponsored, global Proliferation Security Initiative (PSI) and its Statement of Interdiction Principles. The PSI aims to establish a more coordi-

## **Countering the proliferation of weapons of mass destruction is a global endeavour**



nated and effective basis through which to impede and stop shipments of weapons of mass destruction, delivery systems, and related materials flowing to and from states and non-state actors of proliferation concern. NATO's Senior Political-Military Group on Proliferation is regularly informed of developments in the PSI. NATO's Operation Active Endeavour also contributes to achieving the PSI's objectives by enhancing maritime security in the Mediterranean, and helping to detect, deter, defend and protect against activities by non-state actors.

## **Missile defence**

NATO continues to work on defending its forces, populations and territory against the threat of missile-borne weapons of mass destruction. The Alliance is approaching missile defence from several perspectives. ►



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First, an ongoing NATO project is developing an Active Layered Theatre Ballistic Missile Defence (ALTBMD) system. An initial Operational Capability, focusing on the protection of the NATO Response Force against short-range missiles, is planned for 2011. The longer-term aim is to protect deployed forces against short and medium-range ballistic missiles by intercepting them in the boost, mid-course and final phases. The ALTBM is a multi-layered system of systems, comprising early warning sensors, radar and various interceptors that should reach full operational capability in the 2016-2017 timeframe. Individual NATO member countries will provide the sensors and weapon systems, while NATO will develop a commonly funded NATO architecture to integrate all these elements.

At a lower level of NATO's ALTBM architecture is the Medium Extended Air Defence System (MEADS). The programme is now in the design and development phase, aiming for the capability to be fielded in 2013-2014.

A second important aspect of the Allies work on missile defence is to develop options for protecting Alliance territory, forces and population centres against the full range of missile threats. A decision to start work in this area was taken at the 2002 Prague Summit. This led to the launch of a NATO Missile Defence Feasibility Study which was undertaken by a transatlantic multinational industry team in cooperation with NATO and completed in 2006. It concluded that a NATO missile defence programme is technically feasible, within the limitations and assumptions of the study. The results were approved in April 2006 by the Conference of National Armaments Directors (the procurement chiefs in NATO member countries).

The study provided a technical basis for ongoing political and military discussions regarding the desirability of a NATO missile defence system.

NATO is united on its missile defence approach and wants to ensure the indivisibility of Alliance security and that all countries would be protected

## Deterrence

The Alliance's 1999 Strategic Concept sets out how NATO's forces contribute to the preservation of peace. By deterring the use of weapons of mass destruction, NATO forces contribute to Alliance efforts aimed at preventing the proliferation of these weapons and their delivery systems. The Allied defence posture must make it clear to any potential aggressor that NATO cannot be coerced by threats or use of weapons of mass destruction, and that the Alliance has the capability to respond effectively. This posture includes an appropriate mix of conventional and nuclear forces based in Europe. ■

from any potential missile threats. An update of a 2004 Alliance assessment of missile threat developments was completed in 2007. A comprehensive report on missile defence was completed in time for the Bucharest Summit in April 2008.

At Bucharest, Allied leaders recognized that the planned deployment of European-based US missile defence assets will help protect many Allies, and agreed that this capability should be an integral part of any future NATO-wide missile defence architecture. Options for a comprehensive missile defence architecture to extend coverage to all Allied territory not otherwise covered by the US system will be reviewed at NATO's next summit meeting in 2009.

A third key element of Alliance work in the area of missile defence is the cooperation with Russia on theatre missile defence (TMD), under the auspices of the NATO-Russia Council. Work is ongoing to create the conditions for NATO and Russia to be able to conduct joint TMD operations during crisis-response operations. Several TMD command post exercises – these are computer-assisted, real-time events that focus on command and control of missile defence forces deployed in a specific theatre of operations – have already taken place to test the concepts and procedures developed under this initiative.

## **Improving civil preparedness**

NATO is also actively working to improve civil preparedness and consequence-management capabilities in both Allied and Partner countries

for potential attacks on the civilian population using CBRN agents. The Euro-Atlantic Disaster Response Coordination Centre, which is based at NATO Headquarters, stands ready to act as a clearing house for mutual assistance, upon request, and can also assist in coordinating civil-military cooperation in the event of such an attack.

Furthermore, a comprehensive Civil Emergency Planning Action Plan is currently being implemented together with Partner countries. Central to this Action Plan is an inventory of capabilities to respond to weapons of mass destruction. It includes deployable units for WMD consequence management and non-deployable forms of assistance, such as laboratory and hospital capacities. The Action Plan also covers border-crossing arrangements for relief teams, equipment and supplies, and a set of non-binding guidelines and minimum standards which nations could follow in the areas of equipment, training, and planning for civilian response to weapons of mass destruction. Efforts to enhance information sharing and public information in crises are also ongoing.

These mechanisms and procedures have been put to the test in realistic, large-scale field exercises, which have taken place in Russia, Ukraine, Croatia and other Partner countries. These exercises focus on consequence management and response to mass-casualty and environmental disaster situations caused by a terrorist attack. More WMD-response exercises are planned.

Within NATO member countries, the Alliance is actively engaged in planning for medical emergencies. In the event of a biological, chemical or radiological attack, national medical services would react alongside civil emergency planners to quickly evacuate and attend to casualties.

## **Scientific cooperation**

Issues related to weapons of mass destruction and related materials are a key focus of scientific collaboration and research sponsored by NATO's Science for Peace and Security Programme. It promotes scientific co-operation between scientists in NATO member countries, Partner countries and Mediterranean Dialogue countries.

Scientists are developing mechanisms for the rapid detection of chemical, biological, radiological nuclear (CBRN) agents and weapons, and tools for the rapid diagnosis of their effects on people. Other areas include physical protective measures against CBRN agents, the decontamination and destruction of CBRN agents and weapons, the safe handling of materials, and techniques for arms control implementation. ■

**The Alliance is actively engaged in planning for medical emergencies in the event of a biological, chemical or radiological attack**



# Cooperating with Partners

**NATO's partnership programmes provide effective frameworks for dialogue, consultation and the coordination of practical activities in relation to weapons of mass destruction.**

Forums of cooperation include the Euro-Atlantic Partnership Council (EAPC), the NATO-Russia Council (NRC), the NATO-Ukraine Commission and the Mediterranean Dialogue. NATO also consults with countries in the broader Middle East region which take part in the Istanbul Cooperation Initiative as well as with so-called "contact countries" (these are countries such as Australia, New Zealand, Japan and the Republic of Korea, which have less formal relationships with NATO but share NATO's values and contribute to NATO-led operations).

In addition to the work underway with Partner countries on improving civil preparedness, the EAPC is currently conducting an internal capabilities assessment to address the threat of WMD proliferation. In an EAPC Action Plan, Partner countries have outlined goals such as supporting cooperation in defence against terrorism, improving border security, and working with NATO on WMD-related issues.

Beyond NATO-Russia cooperation on theatre missile defence, regular NATO-Russia consultations are

taking place on the broader issue of missile defence. At the Bucharest Summit, the Allies encouraged Russia to take advantage of US proposals for cooperation on missile defence and stated their willingness to explore the potential for linking US, NATO and Russian missile defence systems at an appropriate time.

The Allies and Russia also aim to strengthen joint endeavours in the field of non-proliferation activities. This goal was highlighted in the 2002 Rome Summit declaration on NATO-Russia relations, which established the NATO-Russia Council. An NRC Ad Hoc Working Group on Proliferation Issues was established in 2002. This body brings together representatives from Allied and Russian foreign ministries and other relevant

agencies to discuss proliferation trends and concerns, and to explore possibilities for cooperation.

In addition to work under the auspices of the NRC, Allies are providing bilateral and multilateral assistance to Russia for weapons destruction, and for the safeguarding of nuclear and radiological materials. Such waste material has been accumulated from past activities in the production of nuclear weapons and the use of nuclear energy for civil and military purposes, and as a result of nuclear arms reduction.

NATO also facilitates workshops and seminars on proliferation issues involving non-member countries. The largest such event, which took place in Vilnius, Lithuania, in April 2007, attracted more than 120 senior officials representing 43 countries from five continents, as well as a number of international organizations and academic institutions. It was unique among activities in the non-proliferation field organized by international organizations in that it covered all types of WMD threats as well as political and diplomatic responses to them.

The Alliance also participates in relevant conferences organized by other international organizations, including the Organisation for the Prohibition of Chemical Weapons, the Organisation for Security and Co-operation in Europe, Interpol and others. ■

#### For more information:

- Weapons of Mass Destruction: [www.nato.int/issues/wmd](http://www.nato.int/issues/wmd)
- CBRN Defence Battalion: [www.nato.int/issues/cbrn](http://www.nato.int/issues/cbrn)
- Missile Defence: [www.nato.int/issues/missile\\_defence](http://www.nato.int/issues/missile_defence)
- Active Layered Theatre Ballistic Missile Defence: [www.tmd.nato.int](http://www.tmd.nato.int)
- Civil Emergency Planning: [www.nato.int/issues/cep](http://www.nato.int/issues/cep)
- Euro-Atlantic Disaster Response Coordination Centre: [www.nato.int/eadrcc](http://www.nato.int/eadrcc)
- NATO's flagship seminar on the challenges of WMD proliferation: [www.nato.int/docu/update/2007/04-april/e0418a.html](http://www.nato.int/docu/update/2007/04-april/e0418a.html)

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