



NATO
+
OTAN

Operational
capabilities



NATO *briefing*

DECEMBER 2004



Strategic
lift



Missile
defence

Improving capabilities to meet new threats

“NATO adopted a three-pronged approach to improving its defence capabilities: launching of the Prague Capabilities Commitment, creation of the NATO Response Force and streamlining of the military command structure”

NATO is putting into place a series of measures to improve the military capabilities of its member countries. These are aimed at ensuring that the Alliance can fulfil its present and future operational commitments and fight new threats such as terrorism and the spread of weapons of mass destruction. This is particularly important as NATO takes on new missions in faraway areas such as Afghanistan. These new missions require more forces that reach farther, faster, can stay in the field longer but can still undertake the most demanding operations if need be. Furthermore, these forces must be properly equipped and protected for the more dangerous missions they undertake.

Achieving these capabilities is the objective of the Prague capabilities package. This includes the Prague Capabilities

Commitment (PCC) to improve capabilities in such areas as strategic lift and air-to-ground surveillance. It ►

Defence against terrorism

also includes the Alliance's new military command structure and the creation of the NATO Response Force (NRF).

Terrorism and the proliferation of weapons of mass destruction (WMD) and their means of delivery are major threats to NATO member states. The Alliance has taken additional measures to counter terrorism since it first adopted its Military Concept for Defence against Terrorism at the Prague Summit. NATO is also studying the feasibility of missile defence of its territory, forces and population centres. ■

“At the 2004 Summit, NATO leaders approved an enhanced set of measures to strengthen the Alliance’s contribution to the fight against terrorism”



NATO AWACS aircraft regularly provide protection of international events

At NATO's Istanbul Summit on 28-29 June 2004, NATO leaders approved an enhanced set of measures to strengthen the Alliance's contribution to the fight against terrorism. This includes more rapid response to requests by member countries to help deal with terrorist threats or the consequences of terrorist attacks. NATO's airborne warning and control system (AWACS) aircraft and multinational chemical, biological, radiological and nuclear (CBRN) defence battalion can be made available to any member country requesting such assistance. The Euro 2004 football championships in Portugal received AWACS coverage, and NATO AWACS and elements of the CBRN defence battalion protected the 2004 Athens Olympics.

At Istanbul, Allied leaders agreed to improve intelligence-sharing through a review of current intelligence structures at NATO and through the Terrorist Threat Intelligence Unit at NATO Headquarters in Brussels. This Unit, which was created after the terrorist attacks against

the United States on 11 September 2001, has now become permanent and will analyse general terrorist threats, as well as those more specifically aimed at NATO.

Other anti-terror measures taken by the Alliance and Partners include Operation *Active Endeavour*, NATO's naval surveillance and monitoring operation in the Mediterranean, and the Partnership Action Plan against Terrorism.

The enhanced package of anti-terrorist measures agreed at Istanbul also includes a research and technology programme to combat terrorism developed by the Conference of National Armaments Directors (CNAD). This programme is focusing on the following areas:

- Countering improvised explosive devices, such as car and roadside bombs, through threat detection;
- Reducing the vulnerability of wide-body civilian and military aircraft from man-portable air defence missiles;





Mine-countermeasures is one of the capabilities of the NATO Response Force

- Reducing the vulnerability of helicopters to rocket-propelled grenades;
- Protecting harbours and ships from explosive-packed speedboats and underwater divers;
- Detection, protection and defeat of chemical, biological, radiological, and nuclear weapons;
- Explosive ordnance disposal;
- Precision airdrop technology for special operations forces and their equipment; and
- Intelligence, surveillance, reconnaissance and target acquisition of terrorists.

A further area has since been added: technologies to counter mortar attacks. ■

Multinational CBRN defence battalion

The NATO multinational chemical, biological, radiological and nuclear (CBRN) defence battalion is designed to respond to and manage the consequences of the use of weapons of mass destruction and the release of any CBRN agent both inside and beyond NATO's area of responsibility. Under normal circumstances, it will operate within the NATO Response Force, but it may also be committed to other tasks, including helping Allied civilian authorities.

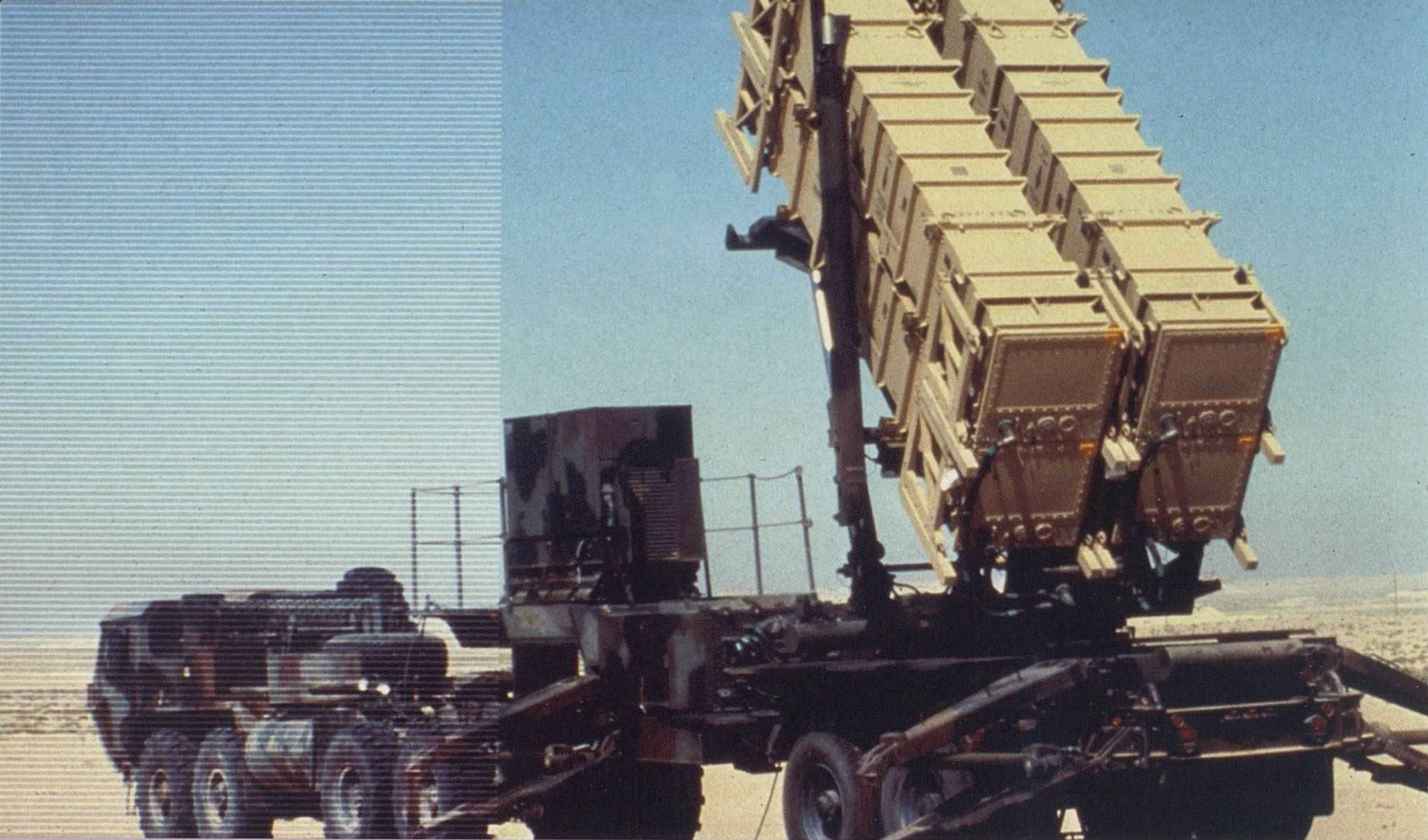
The CBRN defence battalion achieved its initial operational capability in December 2003. Thirteen NATO member states contributed forces to the first rotation of the battalion between

December 2003 and December 2004, which is led by the Czech Republic: Belgium, Canada, Hungary, Italy, Norway, Poland, Portugal, Romania, Spain, Turkey, the United Kingdom, and the United States. Other countries will contribute to or lead subsequent 12-month rotations. Germany will lead the next rotation, followed by Spain.

NATO provided CBRN assistance to the Greek government during the 2004 Olympic and Paralympic Games from 2 August until 30 September 2004. This included the deployment of a task force from the CBRN defence battalion to Halkida, Greece. ■



The NATO multinational CBRN defence battalion regularly exercises its capabilities



The advanced version of the Patriot missile system will be part of the Alliance theatre missile defence system

Missile defence

NATO is considering an extension of its air defence system with an Alliance theatre missile defence (TMD) system. This system would be deployable and used to protect NATO troops on the ground or a threatened territory or region against shorter and medium-range ballistic and cruise missiles, and against aircraft, unmanned aerial vehicles (UAVs) and other unexpected threats. It would consist of a multi-layered system of low and high-altitude defences, including battle management command and control, early warning radar, and various interceptors.

In May 2001, NATO launched two feasibility study contracts for a future

Alliance TMD system. The studies were conducted by teams led by Lockheed-Martin Missiles and Fire Control and Science Applications International Corporation (SAIC). NATO has combined the technical options put forward by the two studies and developed a series of technical requirements for the future TMD architecture. At the Istanbul Summit, NATO leaders directed that work on TMD be taken forward expeditiously. The Alliance is therefore in the process of raising funds in order to start developing the battle management, command, control, communications and intelligence elements in mid-2005. NATO TMD is expected to have an initial operational capability in 2010.

In addition to and building on ongoing work on active layered theatre missile defence, at the 2002 Prague Summit, Allied leaders initiated a new NATO missile defence (MD) feasibility study to examine options for protecting Alliance territory, forces and population centres against the full range of missile threats. This new MD feasibility study has been under contract with a consortium led by SAIC since January 2004, with an expected duration of 18 months, and will address critical issues such as the command and control architecture and the optimum mix of planned and existing systems and capabilities. ■

Defence Capabilities Initiative

The effort to improve Alliance capabilities was given new impetus at the April 1999 NATO Summit in Washington, D.C., where Allied leaders launched the Defence Capabilities Initiative (DCI). The Defence Capabilities Initiative identified a number of areas where improvements for Alliance capabilities were required. These areas fell into five major categories.



Implementing the Prague capabilities package

The Defence Capabilities Initiative was succeeded by a new, more focused initiative at the November 2002 Prague Summit. NATO adopted a three-pronged approach to improving its defence capabilities: launching of the Prague Capabilities Commitment (PCC), creation of the NATO Response Force (NRF) and streamlining of the military command structure. It also adopted a Military Concept for Defence against Terrorism and initiated a new missile defence feasibility study.

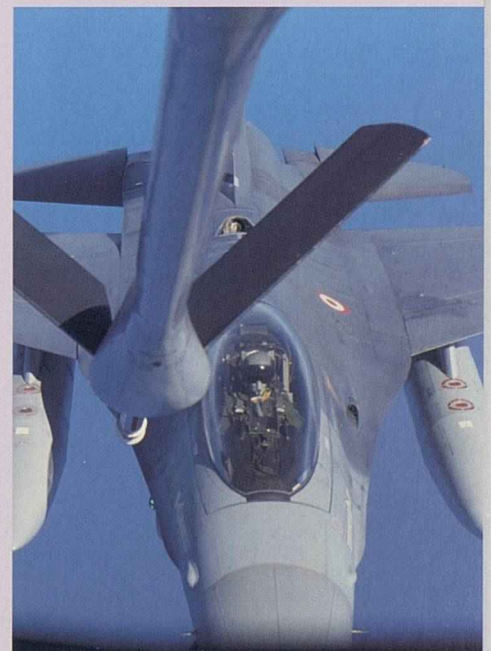
Under the Prague Capabilities Commitment, member countries made firm political commitments to improve capabilities in the following eight fields:

- Chemical, biological, radiological and nuclear defence;

- Intelligence, surveillance and target acquisition;
- Air-to-ground surveillance;
- Deployable and secure command, control and communications;
- Combat effectiveness, including precision-guided munitions and suppression of enemy air defences;
- Strategic air- and sealift;
- Air-to-air refuelling;
- Deployable combat support and combat service support units.

NATO members are improving their capabilities in these eight areas nationally and multinationally. For multinational projects such as strategic sealift, strategic airlift and air-to-air refuelling, consortia with lead nations have been formed. The consortium on strategic sealift

is led by Norway, on strategic airlift by Germany, and on air-to-air refuelling by Spain. ■



Air-to-air refuelling is one of the areas covered by the Prague Capabilities Commitment

From Prague to Istanbul

At their 2004 Istanbul Summit, NATO leaders reaffirmed support for the Prague Capabilities Commitment (PCC) and agreed to give special emphasis to overcoming the remaining critical shortages and to adapt their capabilities to the future security environment. Implementation of the PCC is progressing with the multinational projects. At Istanbul, defence ministers signed a memorandum of understanding on strategic airlift and additional countries signed letters of intent on strategic air and sealift. In a related development, a group of ministers signed a memorandum of understanding on the creation of an F-16 expeditionary air wing.

At Istanbul, NATO leaders set in motion medium- and long-term measures to increase the availability of Alliance member armed forces for future operations.

They approved targets for the usability of member ground forces so that more are available for operations and agreed to changes to NATO's defence planning, force generation, and operational planning and decision-making processes to make them speedier and more efficient and predictable.

At Istanbul, Allied defence ministers agreed to usability goals for their ground forces of 40 per cent deployability and eight per cent sustainability. This means that member country armed forces will be restructured so that 40 per cent of their ground forces can be deployed and eight per cent can be supported in overseas missions at any one time. Members will work to meet these goals or could even surpass them. ■



Letters of Intent for Multinational Capability Projects were signed on 12 June 2003

Alliance Ground Surveillance

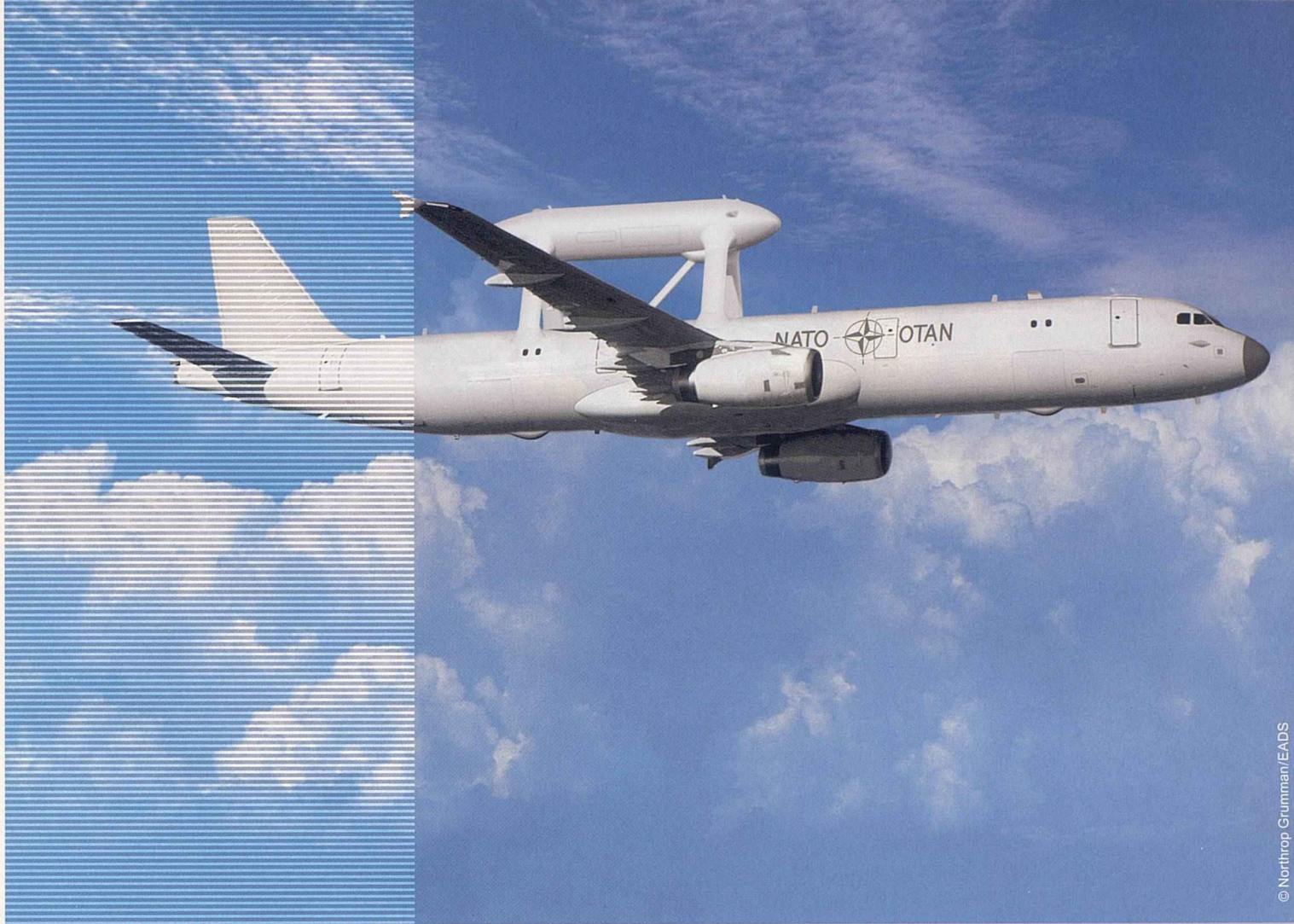
NATO is buying an Alliance Ground Surveillance (AGS) system that will give Alliance commanders a picture of the situation on the ground in mission areas.

It will consist of a mix of manned and unmanned radar platforms that can look down on the ground and relay data to commanders, providing them with "eyes in the sky" over a specific area.

AGS will be produced by the Transatlantic Industrial Proposed Solution (TIPS), a consortium of over 80 companies, including the European Aeronautic Defence and Space Company (EADS), Galileo Avionica, General Dynamics Canada, Indra, Northrop Grumman and Thales. The system is scheduled to achieve an initial operational capability in 2010 and full capability in 2012. It will be owned and operated by NATO.

Just as NATO's AWACS radar aircraft oversees airspace, AGS will be able to look at what is happening on the ground. AGS will provide situational awareness before and during NATO operations. This is an essential capability for modern military operations and will be a key tool for the NATO Response Force (NRF).

AGS will consist of manned and unmanned platforms, as well as ground control stations in different configurations. The manned platform will be based



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The Alliance Ground Surveillance system will give a picture of the situation on the ground

on the Airbus A321 commercial airliner and the unmanned platform on the Global Hawk high altitude long endurance unmanned aerial vehicle (UAV). Both the manned and the unmanned platforms will carry the Transatlantic Cooperative AGS Radar (TCAR).

AGS will operate from one main operating base as well as forward operating locations and be ready to deploy to any mission area within five days. There will be two orbits, one for the manned aircraft and one for the UAVs.

Its exact capabilities will depend on the results of the effort to develop the TCAR it will carry but they will include the

ability to identify individual vehicles from a stand-off distance.

AGS will be interoperable with national systems belonging to NATO countries, forming a system of systems when necessary.

Until AGS is ready, the US Air Force's Joint Surveillance and Target Attack Radar System (JSTARS) will support the NRF.

On 1 April 2004, the AGS Steering Committee decided to sign the design and development contract with TIPS, a decision endorsed by the Conference of National Armaments Directors on

16 April 2004. The design and development phase will last for two years between the contract signing with TIPS in 2005 and 2007. It will be followed by the acquisition phase between 2007 and 2009. This will be divided into engineering and manufacturing development and the actual acquisition. ■

Strategic lift

Strategic lift is important to transport significant forces over long distances. It will be substantially improved by the efforts of two consortia set up under the Alliance's Prague Capabilities Commitment, one covering airlift and the other sealift.

The German-led airlift consortium includes Canada, the Czech Republic, Denmark, France, Hungary, Luxembourg, the Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain and Turkey. At Istanbul, defence ministers of these 15 countries signed a memorandum of understanding aiming to achieve an operational airlift capacity for outsize cargo for an on-call availability charter

by 2005 using up to six An-124-100 transport aircraft. In addition, the defence ministers of Bulgaria and Romania signed a letter of intent to acquire this capability.

Norway leads the Multinational Sealift Steering Committee, which includes Canada, Denmark, Hungary, Italy, the Netherlands, Portugal, Spain and the United Kingdom. The sealift agreement signed by their defence ministers in Brussels in December 2003 is based on three components:

- ships available through assured access contracts;
- two ships on full-time charter from Denmark; and

- the residual capacity of four British ships.

At the Istanbul Summit, the defence ministers of Bulgaria, Estonia, Latvia, Romania and Slovenia signed a supplementary letter of intent on strategic sealift. ■

Leased Antonov An-124s lift NATO forces as far as Afghanistan



NATO Response Force

The NATO Response Force (NRF) is a rapidly deployable multinational unit made up of land, air, maritime and special forces components. Numbering over 20,000 troops when it reaches its full operational capability in October 2006, it will be able to start to deploy after five days' notice and sustain itself for operations lasting 30 days or longer if resupplied.

The NRF will be able to deploy worldwide, as and when decided by the North Atlantic Council. Possible missions range from non-combatant evacuation missions to combat operations. In addition to evacuation, these include humanitarian and crisis response missions, including peacekeeping, counter-terrorism, and embargo operations.

NATO Secretary General Jaap de Hoop Scheffer explains: "The NRF will not only give us a highly capable quick reaction force that is ready for operational deployment wherever required; it is also meant as a catalyst for continuing improvements in Allied forces - and sustaining interoperability across the Atlantic."

When it reaches its full operational capability, the NRF will consist of a brigade-size land component with a forced-entry capability, a naval task force composed of one carrier battle group, an amphibious task group and a surface action group, an air component



The NRF includes land and maritime components

capable of 200 combat sorties a day, and a special forces component.

The NRF, which is driven by the underlying principle: "first force in, first force out", has different missions:

- As a stand-alone force for Article 5 collective defence or non-Article 5 crisis response operations, such as evacuation operations, disaster consequence management (including chemical, biological, radiological and nuclear events), and support in a humanitarian crisis situation and counterterrorism operations;
- An initial entry force facilitating the arrival of larger follow-on forces;
- To show NATO determination and solidarity to deter crises (quick response operations to support diplomacy as required).

Combat support and combat service support capabilities will be integral parts of the NRF. These include nuclear, biological and chemical defence and medical units, as well as supporting air and naval units, logistics, communications, intelligence and whatever else is required to make it a credible and capable fighting force.

The NRF prototype numbering 9,500 troops was officially inaugurated on 15 October 2003 at the headquarters of Joint Force Command in Brunssum, the Netherlands (AFNORTH). The NRF achieved an initial operational capability in October 2004, with some 17,000 troops, and will grow to 24,000 when it reaches its full operational capability by October 2006. ■



Under NATO's new command structure, a deployable sea-based Combined Joint Task Force Headquarters, Lisbon

New NATO command structure

At their meeting on 12 June 2003, Allied defence ministers agreed on the design of a new streamlined military command structure. It is leaner, more flexible, more efficient, and better able to conduct the full range of Alliance missions.

At the strategic level, there is now only one command with operational responsibilities, Allied Command

Operations commanded by Supreme Allied Commander Europe (SACEUR). It performs the operational duties previously undertaken by Allied Command Europe and Allied Command Atlantic. SACEUR continues to be dual-hatted as the commander of the US European Command.

In addition, a new functional command, Allied Command Transformation (ACT), commanded by Supreme Allied Commander Transformation (SACT), has been established to take responsibility for promoting and overseeing the continuing transformation of Alliance forces and capabilities. SACT is dual-hatted as the commander of the Joint Forces Command, which is responsible for US military transformation, thereby linking NATO to US efforts in this area.

Allied Command Operations



Allied Command Operations, with its headquarters, Supreme Headquarters Allied Powers Europe (SHAPE), near Mons, Belgium, is responsible for all Alliance operations. The levels beneath SHAPE have been significantly streamlined, with a reduction in the number of headquarters. The operational level consists of two standing Joint Force Commands (JFCs), one in Brunssum, the Netherlands, and one in Naples, Italy, both of which can conduct operations from their static locations or provide a land-based Combined Joint Task



headquarters can be drawn from Joint

Force (CJTF) headquarters, and a robust but more limited standing Joint Headquarters (JHQ), in Lisbon, Portugal, from which a deployable sea-based CJTF headquarters capability can be drawn.

The component or tactical level consists of six Joint Force Component Commands, which provide service-specific - land, maritime or air - expertise to the operational level. Although these component commands are available for use in any operation, they are subordinated to one of the Joint Force Commanders. For the Joint Force Command in Brunssum, there is an Air Component Command at Ramstein, Germany; a Maritime Component Command at Northwood in the United Kingdom; and a Land Component Command at Heidelberg, Germany. For the Joint

Force Command in Naples, there is an Air Component Command at Izmir, Turkey; a Maritime Component Command in Naples; and a Land Component Command at Madrid, Spain.

In addition to these component commands, there will be four static Combined Air Operations Centres (CAOCs) - in Uedem, Germany; Finderup, Denmark; Poggio Renatico, Italy; and Larissa, Greece; and two deployable CAOCs in Uedem and Poggio Renatico. As the deployable CAOCs will need to exercise their ability to mobilise and deploy, the current facilities at Torrejon Air Base in Spain will be the primary site for training and exercising in that region. A small NATO air facility support staff will be stationed at Torrejon to support this capability.



Allied Command Transformation

ACT, with its headquarters in Norfolk, Virginia, is overseeing the transformation of NATO's military capabilities. In doing so, it will enhance training, improve capabilities, test and develop doctrines and conduct experiments to assess new concepts. It will also facilitate

the dissemination and introduction of new concepts and promote interoperability throughout the Alliance.

There is an ACT Staff Element in Belgium primarily for resource and defence planning issues.

ACT includes the Joint Warfare Centre in Norway, a new Joint Force Training Centre in Poland and the Joint Analysis and Lessons Learned Centre in Portugal. ACT Headquarters also supervises the Undersea Research Centre in La Spezia, Italy. There will be direct linkages between ACT, Alliance schools and NATO agencies, as well as the US Joint Forces Command. A NATO Maritime Interdiction Operational Training Centre in Greece, associated with ACT, is also envisaged. In addition, a number of nationally- or multinationally-sponsored centres of excellence focused on transformation in specific military fields will support the command. ■

Cooperation with Partners

NATO Partners have been contributing to improving Alliance capabilities in various areas.

Ukraine and Russia have been providing airlift for forces deploying on NATO missions, most recently in Afghanistan. During high-level NATO-Ukraine consultations with the participation of the defence ministers of NATO and Ukraine in Warsaw on 7 June 2004, NATO and Ukraine signed a memorandum of understanding on strategic airlift. NATO and Russia have conducted exercises involving air-to-air refuelling and airlifting air defence systems.

Amongst the activities of the NATO-Russia Council (NRC) are cooperation on anti-terror technologies and missile defence. The NRC has discussed anti-terror technologies and what Russian industry has to offer in this area. The NRC is conducting a theatre missile defence (TMD) interoperability study. At



On 8-12 March 2004, the first joint NATO-Russia theatre missile defence command post exercise was held in Colorado Springs

the Istanbul Summit, an NRC foreign ministers' meeting agreed to initiate the second phase of this study, which is examining how NATO and Russian anti-missile systems can operate together.

During the first stage of the study, the NATO-Russia TMD *Ad Hoc* Working Group developed an experimental concept and an associated experimental concept of operations and produced a glossary of terms. The glossary was put together by air defence experts from

capitals so that NATO and Russia use the same definitions.

On 8-12 March 2004, the NATO-Russia TMD *Ad Hoc* Working Group held the first joint NATO-Russia TMD command post exercise at the US Joint National Integration Center in Colorado Springs, Colorado. The real-time exercise focused on command and control and the validation of the experimental concept and the experimental concept of operations. ■

- For more information, see
- Operational capabilities - www.nato.int/issues/capabilities/index.html
 - Prague capabilities package - www.nato.int/docu/pr/2002/p02-127e.htm
 - NATO Response Force - www.nato.int/issues/nrf/index.html
 - NATO's new military command structure - www.nato.int/issues/military_structure/command/index-e.htm
 - The fight against terrorism - www.nato.int/terrorism/index.htm
 - NATO's Multinational CBRN Defence Battalion - www.nato.int/shape/issues/cbrndb/index.htm
 - 2004 Istanbul Summit - www.nato.int/istanbul2004

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