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Science, Society, Security

news

Science Committee

Committee on the Challenges of Modern Society

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Security through Science – Two years on

Since the NATO Programme for Security through Science was launched at the beginning of 2004, the security-related focus of its collaborative activities has supported NATO's priorities in the current security environment, as exemplified by the activities taking place during the fall of 2005. The first Security Science Forum was organised on 18 October with the aim to identify how the STS Programme can develop solutions in order to help NATO address its security concerns. This was followed on 19 and 20 October by meetings of the Science Committee in Alliance and NATO-Russia Council format as well as in Euro-Atlantic Partnership Council configuration. On 20 October, on the margins of a visit of the North Atlantic Council to Ukraine, a group of NATO ambassadors visited the National Science Centre, in Kharkiv, to learn more about a Science for Peace

project focusing on the construction of a new x-ray machine for medical use. A series of workshops jointly organised by the STS Programme and NATO's Conference of National Armaments Directors is on track. A recent joint workshop on "Detection Technologies for Combating WMD Terrorism" underscored the support of the Security through Science Programme to NATO's involvement in the fight against terrorism. Environmental security concerns were discussed in relation to conversion policy at a workshop in Germany. During a seminar on NATO-Algeria cooperation organised in Algiers on 8 November, scientific cooperation was singled out by the Algerian Minister for Foreign Affairs, Mr Mohamed Bedjaoui, as an important aspect in the relationship between NATO and Algeria.



The Science Committee meets in Brussels

⇒ The Science Committee (SCOM) gathered at NATO Headquarters for a series of meetings on 19 and 20 October 2005. The SCOM met in Alliance and in NATO-Russia Council (NRC) format as well as with Partner countries in Euro-Atlantic Partnership Council (EAPC) configuration.

The SCOM in Alliance format started its meeting by discussing the results of the first Security Science Forum, which was held at NATO HQ on 18 October (further information on the Forum can be found in this Newsletter). The agenda of the meeting focused on three main points: a report by the Joint Working Group on the restructuring between the SCOM and the Committee on the Challenges of Modern Society (CCMS); the status and future direction of the Virtual Silk Highway (a computer networking project providing Internet connectivity to the Caucasus and Central Asia countries); and, activities with other international organisations. With regard to the first point, the SCOM endorsed the proposed general approach, including a new committee structure. Further discussions will be needed before the Terms of Reference of the new committee can be drafted. This was followed

by a briefing of the Chairman of the Silk Board, Dr Peter Kirstein, which led the discussion to focus on the status and future directions of the Virtual Silk Highway project. It was agreed that a tender for satellite contracting would be issued with the support of the NATO Consultation, Command and Control Agency (NC3A).

Of interest to the SCOM was a presentation given by Dr Jean-Marie Cadiou, Director of the EU Institute for Security and Protection of the Citizen, on the activities of this Institute which is part of the EU Joint Research Centre (JRC). The JRC functions as a centre of science and technology reference for the EU and this Institute provides research-based, systems-oriented support to EU policies, in particular to EU security-related policies (such as anti-fraud). Science Committee members dis-

cussed with Dr Cadiou issues of common relevance and agreed to maintain contacts with the EU. The SCOM also agreed in principle to support a joint initiative with the European Science Foundation (ESF) and the International Association for the Promotion of Cooperation with Scientists from the Newly Independent States of the Former Soviet Union (INTAS) for a series of workshops and a final conference focusing on Human and Societal Dynamics. This initiative is entitled SAFE (Security: Advancing a Framework for Enquiry) and will examine how the humanities and social science can contribute to security research. The discussion on activities with other international organisations was concluded by a presentation from the Public Diplomacy Division (PDD) Staff on the status of the Environment and Security Initiative (ENVSEC). In the framework of ENVSEC,

THE WORLD'S TALLEST BUILDINGS



NATO, the Organization for Security and Co-operation in Europe (OSCE), the United Nations Development Programme (UNDP) and United Nations Environment Programme (UNEP), provide assistance to the countries in Southeast Europe, the Caucasus and Central Asia through projects aimed at tackling environmental issues that can threaten regional security. The SCOM considered a financial contribution of the STS Programme to implement the extension of ENVSEC to Belarus, Moldova and Ukraine. This extension was discussed at the meeting of the ENVSEC board on 27 September 2005.

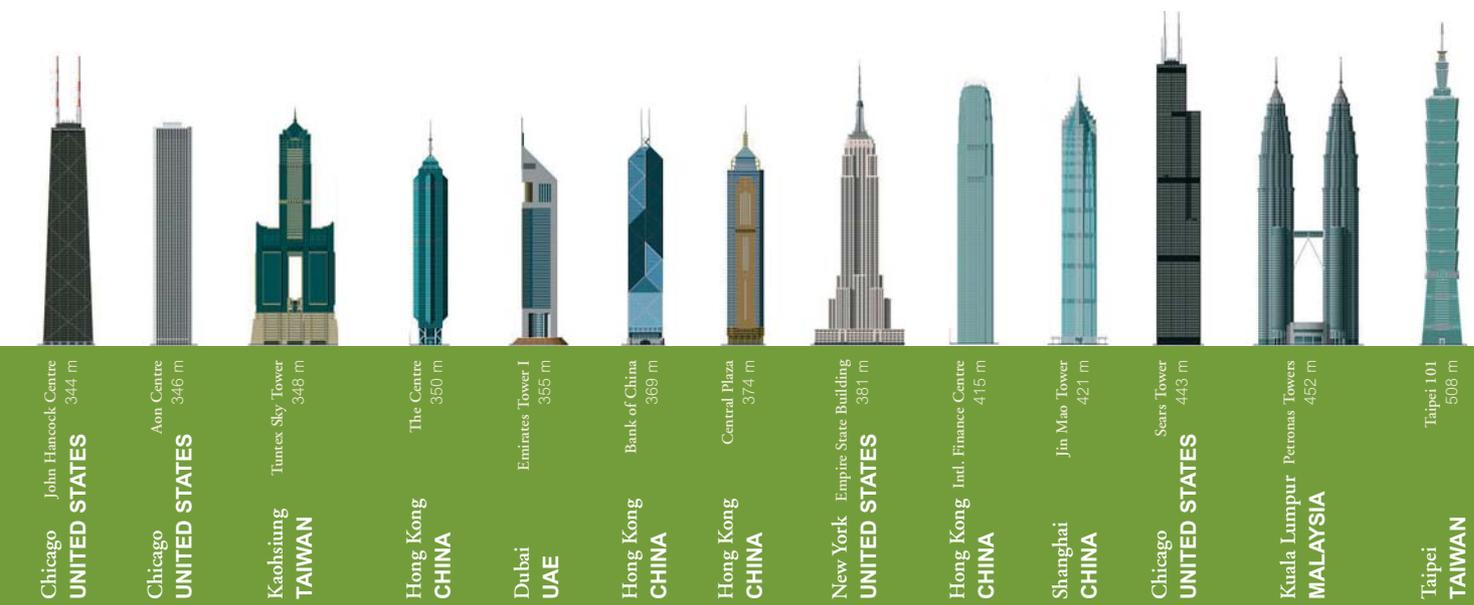
The SCOM in EAPC format was briefed by the PDD Staff on the Reintegration Grant support mechanism, on the work of the Human and Societal Dynamics (HSD) Panel and on the Information and Communications Security (ICS) Panel. Both NATO and Partner countries were invited to identify further possibilities for

cooperation in these areas. The Moldovan and Ukrainian representatives gave presentations on topics for concrete project proposals. Ukraine proposed a project on "Food Security and Safety – Harmonisation of Approaches Applied in Ukraine with Global Ones". This was followed by additional presentations from the PDD Staff on the Virtual Silk Highway, the ENVSEC Initiative and the Melange Conversion project. The latter, which is financially supported by the STS Programme, involves the development and construction of a mobile plant to demonstrate technology for the conversion of melange (an environmentally hazardous rocket fuel oxidiser formerly used by Warsaw Pact countries).

The meeting of the NRC Science Committee started with a review of the activities carried out under the NRC Science Committee Action Plan for

2005-2006 and proceeded with a discussion on the activities of the NRC Science Committee Working Groups on Explosives Detection, on Psychological and Sociological Consequences of Terrorism and on Cybersecurity. Prof. Igor Kirillov of the Russian Federation presented additional ideas with regard to a project, jointly initiated with Prof. Hans Pasman from the Netherlands, on "Hazard and Risk Analysis for Aircraft Collision with High-Rise Buildings". Prof. Kirillov and Prof. Pasman have submitted an application, currently under review, to the Chemistry, Biology and Physics (CBP) Panel for this top-down activity.

The Science Committee will resume discussions on these issues at its next meeting on 9 and 10 March 2006 at NATO HQ.



Exploring the link between conversion policy and environmental security



⇒ Although the end of the Cold War has paved the way to a substantial demilitarisation and conversion, the leftovers of this process – such as former military installations, military training areas as well as huge quantities of unserviceable ammunition and equipment – still pose a severe threat to the environment of both NATO and Partner countries.



Stockpiles of landmines are disassembled for recycling in Kragujevac in Serbia and Montenegro

In order to explore this theme, an Advanced Research Workshop (ARW) on “Environmental Security and Public Safety – Problems and Needs in Conversion Policy and Research after 15 Years of Conversion in Central and Eastern Europe” was convened in Cottbus, Germany, from 8 to 12 October 2005. The workshop was co-directed by Prof. Dr Ing Wolfgang Spyra from the Brandenburg University of Technology at Cottbus, and Prof. Dr Kirill Babievskiy, from the Russian Academy of Science, Moscow, Russia.

While reviewing environmental security issues related to conversion policy and

research, exchanging experiences and providing an account of the state of conversion in the countries represented at the meeting, the final objective of the workshop was the definition of policy goals, research objectives and targets for conversion over the next decade.

Typical conversion problems discussed during the workshop include: former military training areas; former military installations, barracks, airfields, harbour facilities, and depots; former battlefields; stockpiles of demilitarised explosives and ammunition; and, stockpiles of demilitarised equipment (such as vehicles, aircraft, and vessels). Each

site or stockpile of ammunition or equipment poses diverse problems to environmental security and public safety, according to the specific circumstances. For instance, economic development might be affected in areas where the civilian economy has been sustained by garrisons over a long period. Unexploded ordnance and unguarded ammunition and explosives might represent a threat to public safety. In addition, other issues might involve the re-utilisation of former military sites and structures; the development of technologies to recycle excess ammunition, explosives and equipment that meet both security and environmental standards; and, the protection of the biodiversity eventually present on a former military training ground. Conversion activities in urban areas pose special challenges due to the proximity of inhabited spaces.

The rehabilitation of these areas for civilian uses is extremely costly and is generally not possible in the short and medium term. For this reason, the development of new methods for the estimation of the risks in case these areas are not rehabilitated should receive special priority. In the context of this ARW, the investigation and appraisal of conversion areas with respect to costs, returns, and legal considerations were discussed. The decades-long use of some areas has led to the leaking of contaminants to the surrounding environment. The collection of data over time has allowed experts to determine the current location of these contaminants. This knowledge is the basis for the planning and execution of conversion measures, which aim to eliminate

dangers both to humans and nature, as well as the return of areas to civil use, so that these areas can be used to promote the economic interests of the society. This workshop also showed how diverse conversion problems in Europe can be not only due to the different historical contexts, but also to different social conditions.

Conversion is presently discussed mainly at regional or state level and funding from governments or international organisations for conversion projects has declined considerably. For example, the European Union has terminated its "KONVER" programme, which was set up to fund conversion projects from 1994 to 1997, without any follow up programme. Indeed, this workshop aimed to make conversion once again a topic of international discussion and cooperation. The key speakers and the organisers of the workshop have prepared a greenbook incorporating the results of the discussions in order to raise awareness of this issue at the international level. A follow-up event could focus on demilitarisation and conversion in post-war areas around the world.



Landmines are disassembled for recycling in Ukraine

Editorial

In recent years the Science and Environmental Programmes of NATO have been one of the leading public diplomacy tools in engaging Partner countries, particularly in the Caucasus and Central Asia. Our Partners in the Mediterranean Dialogue and ICI countries have also identified this programme as a key vehicle of cooperation from which they can obtain practical benefits. This is clearly shown in this newsletter.

NATO staff will work in 2006 to increase the visibility of NATO's Science and Environmental projects by packaging them better as public diplomacy tools, for instance through visits abroad, press briefings, interviews and publications. There are a number of projects of especial relevance and impact in Partner countries which can be highlighted, for instance:

- ⇨ computer networking, such as the Virtual Silk Highway project, which can be extended in the future to focus on content education and distance learning;
- ⇨ reintegration grants and summer schools which reach out to the successor generation of scientists in Partner countries;
- ⇨ concrete priority projects, such as explosive detection and water management, which can be extended



in future to radiological threats, border security, rocket fuel conversion and drug trafficking;

- ⇨ the development of expert networks where scientists can exchange information and share their experience; in future these networks can be developed to respond to those security issues concerning the Alliance and where Partner nations have a particular interest.

As you can see our programme of activities is not running short of ideas and 2006 will be another busy year.

On top of this we should also come to terms with our project of creating a new committee bringing the best of the two existing ones.

Happy New Year !
Jean Fournet

First Security

Science Forum

⇒ Wide-ranging and thought-provoking discussions characterised the first NATO Security Science Forum that took place at NATO Headquarters on 18 October 2005. Allied representatives and members of NATO International Staff gathered to probe and explore security issues and consider how scientific research can contribute to develop solutions, thereby identifying possible future directions for the NATO Programme for Security through Science (STS).

In particular, the Security Science Forum served the following purposes:

- ⇒ to fill a forward-looking, “horizon-scanning” or think tank role, identifying emerging topics and issues relevant to NATO's missions and goals, in which the STS Programme could add value;
- ⇒ to identify specific topics for security research and solicit proposals;
- ⇒ to receive inputs from the NATO nations on their security priorities;
- ⇒ to ensure that activities undertaken within the STS Programme cannot be abused for potential terrorist purposes;
- ⇒ to identify topics which would be suitable for collaboration with Partners, as opposed to those which would have to be conducted among NATO Allies only, or which could only be dealt with as classified activities; and,
- ⇒ to exchange views with relevant NATO bodies as a catalyst for initiating joint activities among them.

The following emerged as the key issues from the discussion:

- ⇒ Long Range Forecasting, with proposals for pilot studies on the impact of technology;
- ⇒ Security Research and Development (R&D) issues, dealing with setting security R&D priorities and the effects of public perceptions;



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The Forum operated at the expert level, as policy setting rests with the Science Committee. The discussion was organised around five sessions, following the opening remarks of NATO Deputy Secretary General, His Excellency M. Alessandro Minuto Rizzo. In the first session, high-level national authorities/experts from three countries informally presented their national security priorities, with an assessment of how the STS Programme could address these priorities. In the second session, security experts identified future threats and challenges that could

be addressed by the Advisory Panels of the STS Programme. This was followed by a session focusing on key Partner and Mediterranean Dialogue security concerns, and possible added value from the STS Programme including joint activities with other international organisations, and by a roundtable discussion where representatives of all NATO stakeholder Divisions and Agencies reviewed promising areas for joint cooperation. Mr Jean Fournet, NATO Assistant Secretary General for Public Diplomacy, wrapped up the discussion and summarised the key results. As a vehicle to help reflection on how to better focus the STS Programme, the first Security Science Forum has also contributed to identifying what value added the Programme can bring in supporting NATO's goals and priorities. Participants proposed that future fora be organised to focus on one concrete issue each time. A second event of this kind will be organised in 2006.

- ⇒ Information Sharing, with the identification of specific areas of cooperation;
- ⇒ Terrorism-related Research, focusing on specific cooperative activities in combating terrorism through civil science, with special emphasis on aspects of Human and Societal Dynamics;
- ⇒ Information and Communications, including the benefits of computer networking initiatives as well as the need to monitor the Internet to deal

with “information pollution”, including terrorist usage;

- ⇒ Failed States, to address topics such as governance, policing, job creation, narcotics, infrastructure development and building strong civil societies;
- ⇒ Science Committee issues, dealing with means to enhance the work of the Committee and its sub-structures; and,
- ⇒ The Potential for Cooperative Research with other NATO Divisions and Agencies.

Cyclotron x-ray project

⇒ On 20 October, a group of NATO ambassadors visited a project in Kharkiv in eastern Ukraine, which is supported as a Science for Peace (SfP) project under the NATO Programme for Security through Science. The x-ray generator that will be developed within the framework of this project is a cyclotron that will produce high-energy x-rays needed for high-resolution image detection in the field of medicine, illicit trafficking, explosion detection, forensic detection and environmental security. The prototype will not only serve as a first design for later commercialisation, but will also be used by scientists from outside Ukraine on a fee-for-use basis.



Constructing the basement of the cyclotron at the National Science Centre in Kharkiv, Ukraine



SfP projects are applied research and development projects aimed at helping Partner countries in their transition towards a knowledge-based and market-oriented society. This particular project benefits Kharkiv by providing educational opportunities for students and young scientists, by promoting its science centre and, hopefully, the future production of such devices.

The device being developed will be much smaller than the very few machines of this power which currently exist globally. While the range of existing machines is massive (with a circumference of 776 to 1436 metres), the new cyclotron will be based on advanced technologies permitting it to have a circumference of only 15 metres. That means such a machine can be placed in the basement of a normal hospital building or research centre. An additional advantage will be that it will produce a large radiation

range (20-225 MeV) permitting a wider range of applications. The total price for this new machine (below one million EUR) and its running costs will be significantly lower compared to those currently manufactured worldwide. While another US project is developing a similarly compact device, the Ukrainian version is expected to be less expensive and thus more accessible to health researchers and providers in Europe, Central Asia, and other developing markets.

Beyond the obvious medical uses, the cyclotron could have a number of security applications, such as:

- ⇒ helping combat illegal trafficking by enabling the detection of specific substances present in bombs;
- ⇒ assisting criminal investigations by allowing the high-resolution detection of materials or structures, such as remains or fingerprints; or

⇒ contributing to environmental security by facilitating the detection of water pollution.

The project was launched in 2003. To date, the theoretical aspects – analysis and design – have been completed. The aim is for a high-quality system to be ready by the end of 2006. In addition to the NATO grant, Ukraine's Ministry of Education and Science is also providing financial support. The project is being carried out jointly by the Kharkiv Institute of Physics and Technology and the Stanford Synchrotron Radiation Laboratory in California, US. The Technical University in Darmstadt, Germany, is providing training for Ukrainian students and has assigned an independent consultant to the project. The Cyclotron Laboratory of the Eindhoven University in the Netherlands is involved in providing training and advice on laser technology. The Lebedev Physical Institute, Moscow, Russia, is also advising on other technical aspects of the project.

News from CCMS



Shoreline contamination by a mixture of heavy bunker fuel and debris resulting from a vessel sinking

NRC CCMS seminar on Oil Spill Response

A workshop on oil spill response was held in Moscow on 27 and 28 October 2005 at the Ministry of Natural Resources of the Russian Federation. This event was the follow up of the first ever NRC-CCMS workshop on "Oil Spill Response Equipment" held in Horten, Norway, in April 2004.

The Moscow workshop aimed to strengthen collaboration between Norway and Russia and to exchange expertise on oil spill response operations mainly in arctic climate conditions. Over 50 participants from Norway, Russia, Turkey and the US were present, representing governmental

institutions and research organisations, in addition to a representative from CCMS.

During the two-day seminar, 22 presentations were given, which covered the system of private and public oil spill response resources. Attention focused on legislation analysis, contingency planning, environmental monitoring, training exercises, and organisation and equipment for oil spill removal. At the November CCMS plenary, many other nations expressed their interest to participate in a follow up workshop, which will be organised in spring 2006.

CCMS meetings at NATO Headquarters

The Committee on the Challenges of Modern Society held its plenary meeting at NATO HQ on 17 November 2005. Discussions focused on policy issues (including the ongoing work on the Science Committee-CCMS restructuring and the results of the Security Science Forum held at NATO HQ on 18 October) and on the implementation of CCMS key objectives.

In this regard, the Committee was informed of developments and results of ongoing and completed activities such as the short-term project on "Analysis of the Environmental Impact Assessment from the Military Training Ground in Krivolak and its Management" and the seminar on "Sustainable building for military infrastructure" which was held in Norway in September 2005. Germany proposed to CCMS a follow up activity to the workshop on biodiversity held in Baku, Azerbaijan, in June 2005.

The proposed topic for this follow up event, which will be discussed in Azerbaijan in early 2006, is "Biodiversity Conservation as a Catalyst for Sustainable Regional Development in Caucasian Mountain areas". The NATO-Russia Council (NRC) CCMS met on 18 November at NATO HQ with the participation of the Deputy Minister of Natural Resources of the Russian Federation, Mr Valentin Stepankov.



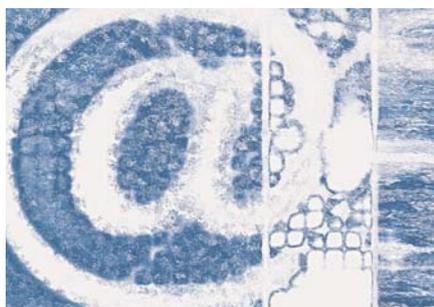
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The discussion focused on the implementation of the NRC CCMS Action Plan (including reports on the workshop on oil spill response and the current status of the short-term project on

ecoterrorism, see below). The Russian Ministry of Defence has expressed its interest to participate in the CCMS workshop on "Environmental Aspects of Military Compounds", due to take place in Vienna in April 2006, which was presented to the NRC-CCMS by Mr M. Gijsbers, from the Ministry of Defence of the Netherlands. Following an invitation from the Russian authorities, the next NRC CCMS and CCMS meetings will be held in Moscow on 5 and 6 April 2006.

non-sensitive information in the event of a terrorist attack against environmental resources. Experts taking part in the project through working groups presented their work. Italian private companies interested in a possible participation in the project were also present. Prof. V. Vashanov from the Russian Federation reported on the ecological and economic estimation of possible damage to the environment caused by a terrorist act. Representatives from the Italian *Comando Carabinieri per la Tutela dell'Ambiente* (CCTA) gave a presentation on their activities to protect the environment from possible terrorist attacks. Another presentation focused on how to contain "crop-terrorism" using pathogenes and toxins, which could bring an agricultural system to financial collapse. The next meeting on ecoterrorism will probably take place in February 2006.



Further information about CCMS:
www.nato.int/ccms

Enquiries about CCMS:
ccms@hq.nato.int

Meeting on Ecoterrorism

The second meeting of the short-term project on Ecoterrorism, jointly led by Italy and Russia, was held at NATO HQ on 27 and 28 September 2005. The project focuses on the development of a database for gathering, organising and evaluating readily available and

Taking stock of NATO-Algeria cooperation

⇒ Science, environment and civil protection – referring to these areas, the Algerian Minister for Foreign Affairs Mr Mohamed Bedjaoui noted that cooperation between NATO and Algeria, in the framework of NATO's Mediterranean Dialogue, has made “a promising start”. “In all these areas”, he maintained, “Algeria greatly benefits from cooperating with NATO in terms of access to expertise, advanced technology, and training and research opportunities”.



Sailors of the Algerian Navy Guard of Honour stand at attention while NATO's Mine Countermeasure Force Southern Europe (MCMFORSOUTH) flagship ITS Alpino goes alongside in the harbour of Algiers on 4 December 2004

These remarks were made by Mr Bedjaoui in Algiers on 8 November 2005 at the opening of a seminar, organised by the NATO Public Diplomacy Division and the *Institut National des Etudes et de Stratégie Globale*, aimed at assessing current and future perspectives of NATO-Algeria relations. NATO Assistant Secretary General for Public Diplomacy Mr Jean Fournet also participated as a speaker at this event.

According to Mr Bedjaoui, Algeria's cooperation with NATO has made a considerable leap forward since the country became a member of the Mediterranean Dialogue in March 2000, and has contributed to enhance peace, security and stability in the Mediterranean area. This has been achieved by

promoting the political, military and civil component of the Dialogue through different activities. Mr Bedjaoui also recalled Algeria's participation in NATO's Operation Active Endeavour, the Alliance's maritime operation to detect, deter and disrupt terrorist activity in the Mediterranean, and three stopovers made by NATO ships at the harbour of Algiers in 2002, 2003 and 2004, respectively.

The minister highlighted the value of a seminar jointly organised in May 2005 by the NATO Public Diplomacy Division and the Algerian Ministry of Land Planning and Environment on “Improving the earthquake safety of public buildings in the Maghreb region”, which allowed Algerian experts to benefit from the experience of NATO member countries

in seismic evaluation and risk assessment. Indeed, scientific collaboration was hailed by Mr Bedjaoui as an example of the “intense and diversified” cooperative relationship that NATO and Algeria have established. Mr Bedjaoui concluded his remarks by making a positive assessment of how such a relationship has been developed so far.



Sailors of the Algerian Navy Guard of Honour alongside the German Support Ship FGS WERRA, flagship of NATO's Mine Countermeasure Force Southern Europe (MCMFORSOUTH) in Algiers on 5 October 2003

Keeping up cooperation between Security through Science and the Conference of National Armaments Directors

⇒ Initiating a dialogue among NATO countries on response and consequence management policy and procedures in the area of defence against weapons of mass destruction (WMD) – such was the aim of the workshop convened in Warsaw, Poland, from 14 to 16 September 2005 in cooperation with the NATO Programme for Security through Science and NATO's Conference of National Armaments Directors (CNAD), with participation by NATO's Civil Emergency Planning activity.

This workshop is a follow up of a NATO-sponsored event held in 2002 on "Detection Technologies for Combating WMD Terrorism", where threats were identified, and technology and systems approaches were proposed with which to combat WMD threats. Response plans have since been developed, equipment purchased and training and exercises have been held. The Warsaw meeting, organised by Dr Peter J. Stopa of the USA RDECOM in Maryland, US, revisited the issue and discussed the various aspects of a response to a WMD event.

The focus of the three-day event was how to improve coordination and cooperation between military and civilian leadership and assets in case of a terrorist attack using WMD. The discussion kicked off with a review of NATO's policies on WMD threats and an assessment of the strengths and weak-

nesses of the current approach. Preparation and planning for a response to a terrorist attack involving WMD was the topic tackled next, which included medical surveillance (e.g. epidemiological monitoring), medical preparedness (e.g. hospital preparedness and pharmaceutical stockpiles) and current strategies for integrating civilian and military response.

This was followed by discussions on issues related to crisis management (such as command and control, managing the media and handling mass casualties) and consequence management (including mass decontamination and mass medical treatment), focusing on how to improve interoperability between the military and civilian sectors in both situations. Moreover, industry representatives presented technological capabilities that can be used for crisis and consequence management.

Restoration, including restoration of facilities and of the environment after an attack, was also discussed. The output of the meeting will be a brochure that presents an overview of NATO policies on WMD terrorism and discusses technology applications as a means to improve WMD response.

This workshop addressed three main recommendations to NATO. First, cross-training, cross-planning and cross-exercises involving both military and civilians need to be adopted to increase the effectiveness of a response to a WMD or mass casualty event. Second, NATO requirements should reflect both military and civilian needs when it comes to WMD or mass casualty issues, in order to improve interoperability between these two groups. Third, NATO should continue to foster communication among these groups to the extent possible, for instance, by sponsoring workshops.

This meeting was one of a series of five workshops organised in cooperation with the STS Programme and CNAD, the senior advisory committee to the North Atlantic Council on armaments issues. "Defence against Terrorism" is both one of the priority research areas of the STS Programme and a major CNAD initiative, and the workshops (involving scientists and CNAD experts) are aimed at creating synergies between the two. The workshops' series covers the following topics: explosives detection; munitions and explosive disposal; CBRN detection; sensors for harbour protection; and intelligence/surveillance/reconnaissance.

The NBC team tests the quality of air during a rescue exercise in the Belo Brdo mine (Serbia and Montenegro)





Upcoming events

- ⇒ **Advanced Study Institute on “Water Resources Management in the Middle East”**
6-17 February 2006
Kibbutz Ketura, Israel
- ⇒ **NATO Forum on Energy Security**
22-24 February 2006
Prague, Czech Republic
- ⇒ **Advanced Research Workshop on “Risk, Uncertainty and Decision Analysis for Ecological Environmental Security and Non-Chemical Stressors”**
20-25 April 2006
Alexandria, Egypt
- ⇒ **Advanced Research Workshop on “Commercial and Pre-commercial Cell Detection Technologies for Defence Against Bioterror - From Idea to Commercial Realisation”**
26-30 April 2006
Moscow-St Petersburg, Russia

Panel member appointed to high office

⇒ Dr Ashok K. Vijh, member of the Chemistry, Biology and Physics (CBP) Advisory Panel, has been appointed as the new President of the Academy of Science of the Royal Society of Canada, and, per office, he has also become Vice-President of the Royal Society of Canada.

The Academy of Science has over 1 000 Fellows representing the elite of scientists in the field of science, engineering and medicine. In addition to the Academy of Science, the Royal Society of Canada includes the *Académie des lettres et des sciences humaines* and the Academy of Humanities and Social Sciences.

Dr Vijh obtained his Ph.D. in Physical Chemistry from the University of Ottawa. He is *Maître de Recherche* at the *Institut de Recherche d'Hydro-Québec* and, concurrently, invited Professor at the *Institut National de la Recherche Scientifique* of the *Université du Québec*. His research has earned him worldwide reputation in electrochemistry. His insight in adopting and adapting concepts and methodologies from solid state physics, applied from a physical chemistry perspective, has allowed him to make an extraordinary number of original and innovative contributions, published in well over 300 refereed publications. Dr Vijh has also received over forty major prizes, awards, medals decorations and other distinctions.



NATO

*Security through Science Programme
CCMS Programme*

Public Diplomacy Division
Boulevard Leopold III
1110 Brussels
Belgium

Contacts: science@hq.nato.int
science.admin@hq.nato.int
(enquiries about distribution)