

Published under the authority of the Secretary General, this magazine is intended to contribute to a constructive discussion of Atlantic issues. Articles, therefore, do not necessarily represent official opinion or policy of member governments or NATO.

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Publisher: Director of Information and Press
NATO, 1110 Brussels, Belgium
Printed in Belgium by Editions Européennes
© NATO

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NATO Review is published periodically in English, as well as in Czech, Danish (*NATO Nytt*), Dutch (*NAVO Kroniek*), French (*Revue de l'OTAN*), German (*NATO Brief*), Greek (*Deltio NATO*), Hungarian (*NATO Tiikor*), Italian (*Rivista della NATO*), Norwegian (*NATO Nytt*), Polish (*Przegląd NATO*), Portuguese (*Noticias da OTAN*), Spanish (*Revista de la OTAN*) and Turkish (*NATO Dergisi*). One issue a year is published in Icelandic (*NATO Fréttir*) and issues are also published in Russian and Ukrainian on an occasional basis.

NATO Review is also published on the NATO web site at: www.nato.int/docu/review.htm

Hard copy editions of the magazine may be obtained free of charge by readers in the following countries from the addresses given below:

UNITED KINGDOM:
Communication Planning Unit
Ministry of Defence
Room 0370 Main Building
London SW1A 2HB

UNITED STATES:
NATO Review - US Mission to NATO
PSC 81 Box 200 - APO AE 09724

Requests from other countries or for other NATO publications should be sent to:

NATO Office of Information and Press
1110 Brussels, Belgium
Fax: (32-2) 707 1252
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Every mention in this publication of the former Yugoslav Republic of Macedonia is marked by an asterisk (*) referring to the following footnote: Turkey recognises the Republic of Macedonia with its constitutional name.

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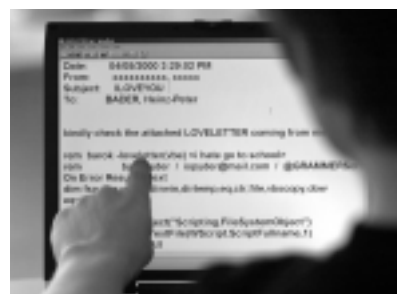
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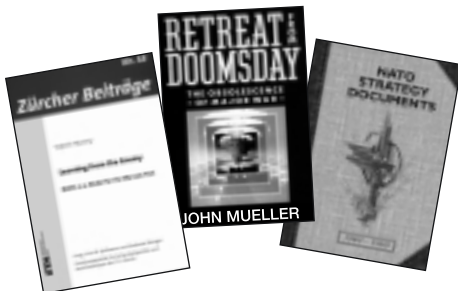
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International terrorism

editorial

The magnitude of the events of 11 September, when terrorists flew hijacked airliners into the Pentagon and World Trade Center, is such that the date has already been ingrained on humanity's collective consciousness. Few people alive today will ever be able to forget where they were or what they were doing when they heard the news. In response, this issue of *NATO Review* focuses on new security threats and ways of combating them. In the first of four articles on this theme, I look at how the Alliance has assisted the United States in the wake of the 11 September attacks. Subsequently, Robert Hall and Carl Fox argue that new, comprehensive and transnational strategies are required to deal with the security challenges of the 21st century. Frank J. Cilluffo and Daniel Rankin of the Center for Strategic and International Studies urge a flexible, comprehensive and coordinated strategy to fight terrorism. Timothy Shimeall, Phil Williams and Casey Dunlevy of the CERT Analysis Center of Carnegie Mellon University in Pittsburgh, Pennsylvania, argue that defence planning has to incorporate the virtual world to limit physical damage in the real. Elsewhere, Willem Matser of the Office of NATO's Special Adviser for Central and Eastern Europe examines the evolution in NATO-Russian relations since 11 September and Osman Yavuzalp of NATO's Political Affairs Division considers the Alliance's relations with its Central Asian Partners. In the interview, Ted Whiteside of NATO's WMD Centre describes the work of his centre. In the debate, Keith Payne of the National Institute for Public Policy and Joseph Cirincione of the Carnegie Endowment for International Peace discuss how missile defence fits into security spending priorities in the wake of 11 September. In the review, Petr Lunak, outreach editor in NATO's Office of Information and Press, considers how documents discovered in Warsaw Pact archives are influencing and challenging conventional interpretations of the Cold War alliances. Statistics illustrating international terrorism and a map indicating the nationalities of the dead from 11 September round out the issue.

Christopher Bennett



Vacancies at NATO

Nationals of NATO countries may apply for all posts on NATO's international staff. Details of vacancies, procedures and application forms are available on the NATO web site at:

<http://www.nato.int/structur/recruit/index.htm>

FOCUS ON NATO

Robertson in Russia



During a trip to Russia from 21 to 23 November, NATO Secretary General **Lord Robertson** met in **Moscow** with Russian President **Vladimir Putin**, Foreign Minister **Igor Ivanov**, Defence Minister **Sergey Ivanov** and National Security Council President **Vladimir Rushailo**. Discussions focused on a package of proposals for more substantive cooperation, particularly to combat terrorism.

On 20 and 21 November, the annual meeting of NATO's **Chiefs of Defence Staff** (CHODs) took place at **NATO**. Following this meeting, the CHODs met separately with their counterparts from Euro-Atlantic Partnership Council countries, Russia and Ukraine.

General **Harald Kujat** of the German Air Force was designated to take over from Admiral **Guido Venturoni** as Chairman of the Military Committee in June 2002 for a three-year term.

Towards normality

Lord Robertson welcomed the peaceful conduct of elections for a provisional assembly in **Kosovo** on 17 November as "a remarkable step forward towards normality" which would give all communities "the chance to build a truly democratic, multi-ethnic and prosperous society".

Lord Robertson commended the parliament of the former **Yugoslav Republic of Macedonia*** for passing 15 constitutional amendments on 16 November to provide for more equitable treatment of minorities.

As part of his tour of aspiring NATO members, **Lord Robertson** visited **Ljubljana**, Slovenia, on 12 Novem-

ber, where he discussed the country's progress in meeting membership criteria with President **Milan Kucan**, Prime Minister **Janez Drnovsek** and Defence Minister **Anton Grizold**, as well as members of parliament.

Balkans trip

Following the resumption of civil unrest in the former Yugoslav Republic of Macedonia,* **Lord Robertson** met government leaders in the capital **Skopje**, on 7 November, to push for progress on implementing promised internal reforms. He travelled to **Pristina**, Kosovo, the next day for meetings with UN Special Representative **Hans Haekkerup** and the KFOR Commander, General **Marcel Valentin**, to discuss preparations for the elections for a new assembly planned for 17 November.

Meeting at **NATO** on 5 and 6 November, the **Conference of National Armaments Directors** discussed the reinforcement of NATO's defence capabilities, further opportunities for defence cooperation with Partner countries, and the development of NATO's theatre missile defence programme and Alliance Ground Surveillance. For the first time, Partner countries were invited to attend certain sessions.

Tour of capitals

Lord Robertson, started his tour of the nine Partner countries aspiring to NATO membership with a visit to **Bratislava**, Slovakia, on 5 November. He met President **Rudolf Schuster**, Prime Minister **Mikulas Dzurinda**, Foreign Minister **Eduard Kukan**, Defence Minister **Jozef Stank** and Slovak parliamentarians.

Some 2,500 personnel from 14 NATO and 13 Partner countries took part in **Allied Effort 2001** in **Wroclaw**, Poland, from 5 to 20 November. The aim of the exercise, which was organised by **Allied Forces North**, was to train the headquarters and component commands of a Combined Joint Task Force in the planning and conduct of a peace-support operation.

Two **illegal arms caches** were discovered by **SFOR** troops on 29 and 30 October in **Han Pijesak**, a Serb-controlled village in Bosnia and Herzegovina, which served as a

Bosnian Serb military headquarters during the Bosnian war.

At a meeting in **Tbilisi**, Georgia, on 29 October, NATO's **Science Committee** gave the go-ahead for the **Virtual Silk Highway project** to provide internet access via a satellite network for the scientific and academic communities of eight countries of Central Asia and the Southern Caucasus.

Nine NATO and 11 Partner countries took part in **Cooperative Determination 2001** in **Baku**, Azerbaijan, between 5 and 16 November. This command post/computer assisted exercise, organised by **Allied Forces Southern Europe**, was aimed at improving military interoperability for crisis response operations.

Parliamentarians from NATO and Partner countries gathered in **Bucharest**, Romania, for a seminar on *The role of NATO in the security of the Black Sea region*, organised by the **NATO Parliamentary Assembly** in cooperation with the Romanian Chamber of Deputies from 25 to 27 October.

An international conference, entitled *Ten Years of Partnership and Cooperation*, took place at **NATO** on 26 October to mark the tenth anniversary of the establishment of the **North Atlantic Cooperation Council**.



Missile defence update

NATO ambassadors were updated on US plans for a missile-defence shield on 25 October by **senior US diplomats**, who reported on the previous weekend's discussions between the Russian and US presidents in

Shanghai, China, concerning the 1972 Anti-Ballistic Missile treaty.

On 24 October, US Admiral **Gregory G. Johnson** took over from US Admiral **James Ellis** as Commander of **Allied Forces Southern Europe**, the regional command based in Naples, Italy, responsible for NATO-led peace-support operations in the Balkans.



Lord Robertson visited **Lisbon**, Portugal, on 24 and 25 October, where he met Portuguese President **Jorge Sampaio**, Prime Minister **Antonio Guterres**, Foreign Minister **Jaime Gama** and Defence Minister **Rui Pena**, and addressed a conference on the future of transatlantic relations.

The eighth meeting of the **North Atlantic Council** and the **European Union's Political and Security Committee**, which took place at **NATO** on 23 October 2001, focused on contributions to the international coalition against terrorism, the peace process in the former Yugoslav Republic of Macedonia* and progress made in establishing arrangements for EU-NATO cooperation.

The prime minister and former king of Bulgaria, **Simeon Saxe-Coburg Gotha**, met **Lord Robertson** at **NATO** on 22 October.



FOCUS ON NATO

Cooperative Support 2001 took place between 17 and 23 October in **Borovets**, Bulgaria, to train NATO and Partner forces in logistical aspects of peace-support operations, including maritime, land, air, amphibious and medical components.

The **Standing Naval Force Atlantic** left **Zeebrugge** naval base in Belgium on 22 October to join the **Standing Naval Force Mediterranean** in the Eastern Mediterranean in support of **Article 5** operations against terrorism.

On 18 October 2001, **Lord Robertson** and Supreme Allied Commander Europe General **Joseph Ralston** joined a high-level delegation of representatives from the European Union and the Organisation for Security and Cooperation in Europe (OSCE) in urging government and opposition leaders in the **former Yugoslav Republic of Macedonia*** to resume the internal reform process.

NATO assets deployed

For the first time in NATO's history, Alliance assets were deployed in support of **Article 5 operations** on 9 October. Five airborne warning and control systems (**AWACS**) aircraft were sent to the United States to free



up US planes for operations over Afghanistan. The **Standing Naval Force Mediterranean** was re-assigned to assure a NATO presence in the Eastern Mediterranean cutting short an annual maritime, air and amphibious exercise, **Destined Glory 2001**, which had been scheduled to run from 5 to 23 October.

Lord Robertson met Canadian Prime Minister **Jean Chrétien**, US President **George Bush** and other key figures during a trip to **North America** from 8 to 10 October. Discussions focused on counter-terrorism activities and

contributions to **Operation Enduring Freedom**.

Article 5 measures

The **NATO Allies** agreed on 4 October, at the request of the United States, to take **eight measures**, individually and collectively, to expand the options available in the campaign against terrorism. These included deployment of ships from the Alliance's standing naval forces to the Eastern Mediterranean and AWACS aircraft to the United States.

Lord Robertson met the **heads of state** of the **Vilnius Group** countries — Albania, Bulgaria, Croatia, Estonia, Latvia, Lithuania, Romania, Slovakia, Slovenia and the former Yugoslav Republic of Macedonia* — at a meeting in **Sofia**, Bulgaria, on 4 and 5 October, where discussions focused on new threats to global security following the terrorist attacks against the United States.

Putin meeting

Russian President **Vladimir Putin** reiterated his country's desire to contribute to the global campaign against terrorism, when he met **Lord Robertson** in **Brussels**, Belgium, on 3 October. They also discussed the situation in Chechnya, missile defence, prospects for NATO-Russia relations and how present cooperation could be extended into new areas.

General **Marcel Valentin** of France succeeded Norwegian General **Thorstein Skiaker** as Commander of **KFOR** on 3 October. He will hold this



post for one year, the previous six-month rotational system having been extended as part of KFOR's reorganisation.

The New NATO — Trends, Challenges, Hopes and Opportunities were discussed at the **Atlantic Treaty Association's** annual assembly, hosted by the Atlantic Council of Slovenia, in **Bled**, Slovenia, between 3 and 6 October.

Article 5 confirmed

On 2 October, **Lord Robertson** confirmed the invocation of **Article 5** after US envoys informed **NATO ambassadors** on the results of investigations into the 11 September **terrorist attacks**. The US envoys confirmed that the attacks had been directed from abroad by the *al-Qaida* terrorist network, headed by Osama bin Laden.

Polish President **Aleksander Kwasniewski** met **Lord Robertson** at **NATO** on 2 October. He expressed his country's readiness to contribute to the fight against terrorism and to increase its peacekeeping presence in the Balkans. Discussions also focused on defence reform and the six-year plan, launched in 1999, to modernise the Polish armed forces.

On 1 October, **Lord Robertson** met Defence Minister **Rudolf Scharping**, Foreign Minister **Joschka Fischer** and the chairman of the opposition CDU party, **Angela Merkel**, in **Berlin**, Germany. They discussed German support for the campaign against terrorism, as well as the country's lead role within **Task Force Amber Fox** in the **former Yugoslav Republic of Macedonia***, which is providing security for EU and OSCE monitors.

Some 2,000 troops from 14 NATO countries took part in **Exchange Adventure 2001**, in **north-west Turkey** from 1 to 25 October, an exercise to train high-readiness forces in **Article 5 operations**.

Lord Robertson attended a ceremony on 28 September at the **NATO**



Defense College in **Rome**, Italy, to celebrate its 50th anniversary.

Prospects for the **Federal Republic of Yugoslavia** joining the Partnership for Peace and the Euro-Atlantic security community were discussed at the first, NATO-sponsored seminar to be held in the capital, **Belgrade**, on 28 and 29 September.

Defence ministers meet

NATO defence ministers met informally at **NATO**, on 26 September, in the wake of the 11 September terrorist attacks, and reiterated their solidarity with the United States and their commitment to the principle of **Article 5**. US Deputy Secretary of Defense **Paul Wolfowitz** briefed ministers on the wide-ranging, long-term approach being developed to combat terrorism. The impact of the terrorist attacks on NATO's future structure and tasks, and the need for more flexible forces and intelligence sharing were discussed, as were NATO's commitments in the Balkans.

On 25 September, the day before completion of **Essential Harvest**, the 30-day mission to disarm ethnic



Albanian rebels in the **former Yugoslav Republic of Macedonia***, **Lord Robertson** visited **Skopje**, where he met government leaders to discuss arrangements for a follow-on mission to provide additional security for international monitors.

 For more information, see **NATO Update** at: www.nato.int/docu/update/index.htm

Aiding America

Christopher Bennett examines how the Alliance has assisted the United States since 11 September and its contribution to the campaign against terrorism.

In the months since terrorists crashed hijacked airliners into the Pentagon and World Trade Center, NATO Allies and Partners have lined up behind the United States in an unprecedented display of support and solidarity. From invoking Article 5 in the immediate aftermath of the attacks to lending the United States the Alliance's airborne warning and control systems (AWACS) aircraft and preparing for a possible role in humanitarian operations in Afghanistan, actions have demonstrated louder than words the unity of Europe and America in the face of what are common security challenges.

The decision on 12 September to invoke Article 5 of the Washington Treaty, the core clause of NATO's founding charter which states that an armed attack against one Ally in Europe or North America shall be considered an attack against them all, remains the most profound expression of Alliance solidarity. Initially invoked provisionally, pending determination that the attacks on the United States were directed from abroad, the decision was confirmed by NATO Secretary General Lord Robertson on 2 October after US envoys briefed the North Atlantic Council (NAC) on the results of investigations into the attacks.

Few of the Alliance's founding fathers could have imagined that the first invocation of Article 5 would come in the wake of an attack on the United States and not on a European Ally. However, all would surely have been impressed by the speed of response and the degree of unity it represented. Moreover, the NAC's historic decision was but one of many demonstrations of support for the United States and condemnations of the attacks made at NATO headquarters in the days following 11 September.

Also on 12 September, the 46 members of the Euro-Atlantic Partnership Council — 19 Allies and 27 Partners — unconditionally condemned the attacks as brutal and senseless atrocities and an attack on their common values. Moreover, they agreed that they would not allow these values to be compromised by those who follow the path of violence and pledged to undertake all efforts to combat the scourge of terrorism. On 13 September, the NATO-Russia Permanent Joint Council condemned the attacks and agreed on the need for NATO-Russia cooperation in combating international terrorism. And on 14 September, the NATO-Ukraine Commission condemned the attacks on the

United States and, in a statement following the meeting, Ukraine announced that it stood ready to contribute fully to ensuring that those responsible for the attacks were brought to justice.

Having invoked Article 5, the Allies agreed on 4 October — at the request of the United States — to take eight measures to implement it and expand the options available in the campaign against terrorism. Specifically, they agreed to enhance intelligence sharing and cooperation, both bilaterally and in the appropriate NATO bodies, related to the threats posed by terrorism and the actions to be taken against it; to provide individually or collectively, as appropriate and according to their capabilities, assistance to Allies and other states which are or may be subject to increased terrorist threats as a result of their support for the campaign against terrorism; and to take necessary measures to provide increased security for facilities of the United States and other Allies on their territory.

The Allies also agreed to “backfill” selected Allied assets required to support operations against terrorism; to provide blanket overflight clearances for US and other Allied aircraft for military flights related to operations against terrorism; and to provide access for the United States and other Allies to ports and airfields on the territory of NATO nations for operations against terrorism. In addition, the NAC agreed that the Alliance was ready to deploy part of its standing naval forces to the Eastern Mediterranean and five AWACS planes to the United States to support operations against terrorism.

On 8 October, five NATO AWACS aircraft, together with their crews — including personnel from Belgium, Canada, Denmark, Germany, Greece, Italy, the Netherlands, Norway, Portugal, Spain, Turkey, the United Kingdom and the United States — flew to the United States to assist with counter-terrorism operations. The deployment is for an initial six months with a first rotation after six weeks. During this time, French AWACS aircraft have taken over responsibility for those tasks, which would normally have been performed by the NATO planes, in particular over Bosnia and Herzegovina.

NATO's Standing Naval Force Mediterranean, which consists of eight frigates and one logistic-support ship from eight countries, set off for the Eastern Mediterranean on 9 October. These forces, which are under UK command, have not been involved in combat operations, but have

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demonstrated Alliance resolve and participation in the campaign against terrorism. Moreover, they are available for other missions, including participation in diplomatic initiatives, such as under the Alliance's Mediterranean Dialogue, NATO's forum for discussion and cooperation with countries in the wider Mediterranean region. These ships were later joined by the Standing Naval Force Atlantic.

The United States and the United Kingdom began military operations against the *al-Qaida* terrorist network and the Taliban regime, which has been harbouring it in Afghanistan, on 7 October. Although this ongoing action is not a NATO operation, it is supported by all Alliance members, many of whom have also pledged ground troops and other military assets to support the campaign and to assist with humanitarian relief for the Afghan people. NATO forces in the Balkans have also contributed to the fight against terrorism. They have arrested several suspected terrorists with links to the *al-Qaida* network and are continuing to investigate the activities of foreign nationals who came to the region as volunteer soldiers during the fighting and have remained.

In response to a potentially grave humanitarian situation, the NAC tasked NATO's military authorities on 13 November with preparing contingency plans for possible humanitarian operations in and around Afghanistan. The Alliance has both expertise and experience in this field, as well as significant logistical capabilities, as demonstrated during the 1999 Kosovo crisis. A possible contribution by NATO in the context of the current crisis would be at the request of the United Nations, and in close coordination with UN agencies and other humanitarian organisations. The unique cooperation among NATO's armed forces that underpinned the success of both the coalition campaign against Iraq a decade ago and the ongoing peace-support operations in the Balkans could prove extremely beneficial in difficult conditions.

In the wake of 11 September, the Alliance has considerably increased its efforts against the dangers of terrorism by weapons of mass destruction (WMD) in all fields, including political, military and medical ones. The Allies are exchanging information on issues related to WMD ter-

rorism more extensively and more frequently. And the WMD Centre (*see interview with WMD Centre Head Ted Whiteside on pages 22 and 23*) is contributing to improved coordination of all WMD-related activities at NATO Headquarters.

On 25 and 26 October, heads of Alliance and Partner countries' civil-emergency planning organisations met at NATO to discuss the implications of the 11 September attacks. They agreed to prepare an inventory of national capabilities, including transport, medical and scientific assets, which could be made available in the event of a biological, chemical or radiological attack to be better able to protect civilian populations. If required, the Euro-Atlantic Disaster Response Coordination Centre, which is based at

NATO and staffed by experts from several NATO and Partner countries, could act as a clearing house for international assistance — in the same manner as it has done in response to several natural disasters in recent years.

Since 11 September, NATO has been developing increasingly close relations with the European Union to help address the terrorist threat. At a 24 September meeting between the NAC and the European Union's Political and Security Committee, ambassadors agreed the impor-

tance of close consultations and cooperation between the two organisations. On 12 October, Lord Robertson briefed EU defence ministers on steps NATO had taken in response to US requests or recommendations by NATO military authorities. And the campaign against terrorism was high on the agenda of the joint meeting of EU and NATO foreign ministers held in Brussels on 6 December.

The events of 11 September have also given new momentum to the NATO-Russia relationship (*see article on pages 19, 20 and 21*). Responses to the terrorist attacks have become a regular theme of meetings of the NATO-Russia Permanent Joint Council. Moreover, Lord Robertson met Russian President Vladimir Putin both in Brussels on 3 October and in Moscow on 22 November to discuss ways that NATO and Russia can work together to fight terrorism and develop a closer relationship that reflects cooperation in this and other areas. ■



Take-off: Five NATO AWACS aircraft have been deployed in the United States to help with counter-terrorism operations

© Reuters

Rethinking security

Robert Hall and Carl Fox argue that new, comprehensive and transnational strategies are required to deal with the security challenges of the 21st century.

On the day that terrorists struck the heart of the United States, an exhibition of modern military equipment was opening in the United Kingdom. The timing of the two events was coincidental. Yet, taken together, they are symbolic of fundamental shifts in the world of international security. The first of these is that today's threats are of an entirely different nature and scale than hitherto. The second is that current responses to them appear increasingly inadequate. Weapons of war designed to counter dangers at the end of the last millennium will not be sufficient for the problems of the next. Yet beyond specific technologies, fresh thinking is required to cope with the new environment.

A new approach is critical because terrorism is just one of many, non-traditional security challenges. Examples include ethnic and religious conflict, drug trafficking, mass migration, environmental instability, corruption, money laundering, militant activism and information theft. Such threats — where conflict and crime often merge — respect no boundaries. All too often, there are no leaders or legions against which to focus attention or target a response. Moreover, the scale of these activities, both in terms of the multitudes caught up in them and the money diverted, is so great that it dwarfs the national economies of many countries. The threats can undermine national and international institutions, as well as bring ruin to employers and employees alike.

At the same time, legitimate organisations that operate without borders are also growing in power and influence and are therefore technically able to respond to the new environment. The currency speculators, the commodity traders, the multinational corporations and the internet service providers now have a profound effect on daily lives. Globalisation, coupled with the revolution in information technology, has given these private institutions the upper hand. Control is now directed more by way of financial markets than any precise geopolitical structures, and disruption is created by the same route. It is perhaps not surprising, therefore, that traditional state mechanisms based on ideas of frontiers and order — monarchies, police, establishments of power — appear under threat. More

importantly, they seem constitutionally incapable of rising to the changing nature of the security challenges. As that inability becomes more apparent, disenchantment with the old system grows. And the cycle perpetuates itself to bitter effect.

To date, the remedy that has generally been prescribed in the face of these challenges is based on yet better intelligence-led activities by specific and official organisations, coupled with more cooperation and partnership between interested sectors. Recent events have given this approach added impetus. However, although there have been positive moves in these areas, they have not gone far enough or fast enough to meet the growing challenges. For instance, the law-enforcement agencies are at least a decade behind in acquiring and deploying the leading technologies available to new-age criminals, while intelligence-led policing seems to be capable of apprehending no more than ten per cent of the illegal drugs or illegal migrants coming into a country. As a result of such deficiencies, real power is now moving beyond the confines of the nation state and institutions like the G8 (the group of seven most industrialised countries and Russia) and the Organisation for Economic Cooperation and Development. The scale of the issues is making those organisations feel increasingly swamped, if not impotent.

A strategic approach

While local issues are likely to remain the bedrock of political actions and business success will always rest on being able to respond quickly to market changes, the importance of the bigger, strategic picture is often missed. This must change for two principal reasons. First, the pervasive and pernicious nature of the new security challenges is universal in effect. Transnational assaults have transnational victims. Second, many of the issues are interconnected. It is no longer possible to separate terrorism from money laundering or organised crime from drug trafficking. Similarly, it is impossible to “wage a war” against one to the exclusion of the other.

Migration is another example of the interrelationship of issues. Refugees and asylum seekers not only pose internal security concerns but may encourage xenophobia and conflict, as traditional work opportunities appear threatened. At the same time, mass movement may bring with it the possibility of infectious diseases affecting both people and livestock. Migration is also exacerbated by environmental instability arising from climate change. A one-metre rise in

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sea levels — and nearly one-third of a metre has occurred in the past century — will displace 300 million people worldwide and put half the cultivated land of countries like Bangladesh under salt water. Paradoxically, many countries spend many times more on physical immigration barriers than on funds to help eradicate the migratory causes or to counter the environmental pollution in the first place. Yet, our responses will go on being reactive and behind the curve — not preventive and ahead of the game — as long as we perpetuate parochial thinking, practise barrier techniques and pull out band-aid solutions.

The strategic thinking necessary to prevail in the face of these interrelated security challenges needs to be similarly interrelated and much more pluralistic. This begins with ever-closer cooperation between law-enforcement and national-security agencies. It also requires full cooperation from a range of other governmental departments, including the military, acting in concert with business. The attacks in the United States reinforce the call for an integrated approach involving diplomatic, military and economic elements. This holistic approach mirrors the nature and complexity of the problem, and other international security issues are not dissimilar. While cooperation between organisations will pay dividends in specific instances, that alone can only achieve so much. This is because of the scale and bureaucracy of the various agencies and institutions involved, their traditions and vested interests.

In attempting to create an effective strategic framework, the question of greater global governance must be addressed. This is not a popular subject in many quarters. Yet the longer politicians fail to address this question, the more powerless they will likely become, the more instability will result and the more painful the eventual transition will be. While there is naturally great suspicion of any supranational body, especially one that is non-elected, it is hard to avoid the conclusion that a global strategy ultimately needs some form of global supervision. This is not the same as global government. In practical terms, it is a case

of giving the resources, the structures and above all the authority to that global institution to get to grips with the problem effectively.

Whatever the ultimate level of authority granted or degree of cooperation agreed, any strategic approach demands a more top-down emphasis, with a large degree of acceptance and subordination by those lower down in the pursuit of the greater good. It requires a grand vision and a single plan, designed to meet a common objective with finite resources. Detailed implementation of such a plan may be tailored to circumstances and institutions but only within a common rubric. That plan must have authority and the people overseeing it the teeth with which to bite.

A top-down approach does not mean to say that input from the ground is irrelevant. On the contrary, information from the grass roots is vital to prevent planning in a vacuum. Yet those on the ground cannot hope to see the bigger picture because of the context in which they operate and may be unaware of more influential factors that are coming into play. Strategy should be a guide to what takes place — and, more importantly, to what is likely to take place. Moreover, as a result of limited resources, part of that guide should be a clear indication of the priorities that everyone must follow. Sadly, what often appears in strate-

gic plans are straight lines of broad intent, extrapolating current developments with targets of 10, 20 or 30 per cent over the next 5, 10 or 15 years. Those targets are replicated by individuals at lower levels without real understanding of the grand vision.

One of the greatest challenges to implementing an effective strategy is to shift focus from short-term crises and annual performance criteria towards longer-term thinking on a higher plane and with a more rounded perspective. Short-term deficits may well have to be accepted in order to gain long-term benefits. While this is hard for shareholders to accept, it is not impossible for governments — even with five-year mandates — to implement. As with



The faces of terrorism: It is no longer possible to separate terrorism from money laundering or organised crime from drug trafficking

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good driving, the key is to keep the eye on the road and not watch the pedals. It is also a case of anticipating wisely but being able to manoeuvre quickly in the face of surprises. Anticipation in politics relies on strategic awareness and planning, and this depends on better long-range intelligence.

Intelligent structures

Success also depends on having the right intelligence structures in place. To date, there has been a tendency to perpetuate intelligence entities that were created and developed to cope with traditional enemies. Formal boundaries between long-established empires remain solidly in force. Customs, the police, the intelligence agencies themselves, key government departments and the military, all have their own intelligence or analytical divisions and rely heavily on service-level or bilateral agreements to pass certain information as well as numerous meetings and committees to demonstrate coordination and consensus. This may work for most of the time, but it is not an adequate response to today's security environment.

A solution can best be achieved by going beyond coordination and consensus-building and imposing a controlling, centralising body on the decision-making process. In other words, it may be necessary to give executive power to a joint authority that could take the collective intelligence, determine the collective response and then direct the various departments to act in a specific and coordinated fashion. The way that subordinate departments responded would be individually determined as part of an agreed strategic approach. Various models have been proposed to help this process, but they have not been sufficiently broad-based to receive universal acclaim or market-driven to ensure relevance.

The idea of centralism is not one that traditionally managed, fiercely independent institutions like working with. Fears of centralism have already killed a proposal presented to the previous US Administration to amalgamate the Federal Bureau of Investigation, the Drug Enforcement Administration and the Bureau of Alcohol, Tobacco and Firearms into one body to tackle the serious crime issues of the day. The idea of an EU intelligence agency, proposed by France and Germany in 1999, was also quickly rejected by others. At the same time, it is recognised that both Europol and Interpol do make valuable contributions in the fight against crime — hence recent efforts to strengthen Europol to fight terrorism. However, Europol is currently hindered by the extent and value of national contributions, broad legal parameters and limited resources. In spite of all the attempts in many areas, progress to centralise information gathering and operations has been either slow or non-existent.

Intelligence vs evidence

As the nature of the threats becomes more diverse and universal, requiring an all-agency response, the central

dilemma of intelligence versus evidence will appear at awkward moments. Certain types of threat seem to exploit the natural antipathy between law enforcement and national security. While the former is concerned with evidence collection and preservation, the latter is concerned with intelligence collection and analysis. As a result, law-enforcement agencies tend to be more open and mindful of civil liberties than their national-security counterparts.

All these jurisdictional niceties and divisions hinder the response to certain attacks, particularly where the perpetrator is unknown. To the policeman, a criminal inserting a computer virus is someone to be apprehended and data retrieved is evidence to be used in a court of law. But to the counter-terrorism expert, stopping the attack or mitigating its effects is the first concern with arrest a useful second. Unfortunately, in the cyber world, for example, one does not know which is the case until after the investigation has begun. Yet the speed of response could be critical in heading off disaster. These two, sometimes mutually exclusive, priorities can be resolved in only two ways. One is to create an organisation with the authority of a law-enforcement agency but the capabilities of both law-enforcement and national-security agencies combined. The other is a clear revision of authorities allowing functional barriers to be removed.

The intelligence failings which allowed the terrorist attacks on the United States to occur will no doubt lead to a significant shake up of both the law-enforcement and national-security departments in that country. With annual intelligence budgets of \$30 billion and the economic price of failure on 11 September alone many times greater, the incentive for doing better in the future is enormous. The need for better human intelligence will surely be a key feature of any review. However, there is also a wealth of intelligence to be tapped in the open literature and from the private sector. Journalists and businessmen alike operate in many of the problem areas and have a wealth of background information to contribute, as they deal with the security issues on a daily basis. In tackling a global problem, burden sharing in the intelligence game is as valid as in other legitimate activities.

The private sector

It is clear that governments, in fighting the growing threats to security, realise that the involvement of the private sector is a vital ingredient. At the simplest level, this can be seen at ports where transport companies are presented with fines if adequate checks are not made on the movement of unauthorised personnel. Moves to insist that internet service providers collect historic data as an evidential aid are another.

These steps towards partnership are understandable, but the impetus has so far been on expectations from government on business as part of good corporate governance. To date, there seems to have been little understanding of the

needs of business. This is, however, beginning to change with the rapid development of electronic commerce, the need for information security and, since 11 September, the realisation that the impact of failure falls heavily on many economies.

Major businesses can offer a great deal as they operate beyond national boundaries, are relatively good at protecting their intellectual property and usually incorporate the latest technologies. They also have resources. Yet they need to be a proper part of a two-way flow of information and the strategic planning process. Automatic demands for information, some of which may be business sensitive, will not encourage participation. A distrust of sharing information with a law-enforcement community, which believes in the right to prosecute in all circumstances, will again fail to open doors where it matters.

When big business and government come together to discuss matters affecting national security and law and order, there can be a misappreciation of intent, particularly among activist groups. It is therefore important to reveal the full purpose of this relationship and to demonstrate the relevance between the fruits of the strategic exchange for local communities. Ultimately, action against the drug crops in Colombia or the people smugglers in Albania can have a greater effect than more policemen on the streets of provincial towns. It is surely the politicians' role to argue the case.

In order to meet the growing number of security challenges in the new millennium, a continuation of past policies and old practices will not suffice. The problems are simply too politically intractable, too thematically interrelated and too economically costly. Good intentions built around closer cooperation and sharing — particularly in the face of a major tragedy — will not be sufficient or sustainable over the long term. What is needed is an unrestricted, comprehensive and transnational strategy that focuses attention beyond the immediate and towards the horizon. Forecasting the future will always be fraught with pitfalls but that is not cause for ignoring discernible trends and developments in a rapidly changing world, any more than trying to adopt isolated policies in the hope that events will pass by.

It is a double tragedy that it has taken the events of 11 September to galvanise world efforts in tackling a problem that is not new but is symptomatic of the dangers of non-state actors on the modern stage and the impotence of nation states to defend themselves adequately. The necessary shift in emphasis towards surveillance and stealth and away from tanks and trumpets will have significant implications, and not just for the traditional arms sector. International security has entered a new era. ■

LE&NS Global Forum



NATO Secretary General Lord Robertson was the keynote speaker at the inaugural, annual Global Forum for Law Enforcement and National Security (LE&NS), which took place in Edinburgh, Scotland, in June 2001. In a pre-recorded video address, Lord Robertson spoke of the increasingly blurred lines between military security and policing and urged both the adoption of innovative approaches to modern security challenges and increased government spending to be able to pay for them.

The LE&NS Global Forum was formed with three aims. These were: to be a vehicle for discussion and analysis of key issues affecting security during the next two decades; to act as a bridge between law-enforcement and national-security agencies from around the world in the pursuit of common goals against increasingly transnational threats; and to offer an opportunity for the public and private sectors to share ideas and propose joint solutions for addressing security challenges.

The inaugural LE&NS Global Forum made four key recommendations. These were: to raise awareness of modern threats; to highlight relevance of the strategic case; to invest in global institutions; and to develop cooperation, particularly in intelligence sharing, between the public and private sectors. The second LE&NS Global Forum takes place in London in June 2002 on the theme *Security Governance to meet New Challenges — Creating Partnerships, Finding Solutions*.



For further details, see www.lensforum.com

Fighting terrorism

Frank J. Cilluffo and Daniel Rankin urge adoption of a flexible, comprehensive and coordinated strategy to fight terrorism.



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Anthrax alert: The events of 11 September and the subsequent anthrax attacks have shown that greater attention must be paid to the terrorist threat

The events of 11 September have transformed America, American attitudes, and the world in which we live. The United States can no longer rely on the protection of the two oceans that have historically shielded its country and people. The terrorist attacks brought home the fact that, since the end of the Cold War, threats have become more complex and far-reaching. Instead of facing a single, predominantly military threat capable of wiping out the entire nation (and the world), we are faced with a myriad of threats, smaller in magnitude

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and harder to see and counter. Because these new threats are by their nature dynamic, amorphous and moving targets, efforts to combat them must be flexible, comprehensive and coordinated.

Terrorism does not emanate from one country, one religion, or even one group, but from networks that span the globe from East to West and North to South, irrespective of national boundaries. It is a transnational threat that requires a transnational response. The attacks against the Pentagon and the World Trade Center may have been carried out on US soil but the shockwave continues to echo around the world. How now are we to respond? How should the United States act to protect itself, its interests and its allies? What should our goals be in the short term? And what should they be in the long term?

The response must be holistic. Organisation, cooperation and coordination are the keys to successfully dealing

with this problem. Initially, we must look at how we wish to formulate our responses and then focus efforts on marshalling the world's resources to mount a cohesive global response. Indeed, many of our efforts must involve other nations and organisations in order to be effective. Engagement with these nations is critical for anti-terrorism and counter-terrorism endeavours, where cooperation and understanding provide the keys to success. Critically, such cooperation works. The Jordanian authorities, for example, helped save countless American lives during the millennium celebrations by preventing planned attacks on American and other tourists in the Middle East.

Despite current emphasis on non-state actors, it is important to continue to pay attention to state actors or state-sponsored actors. This is because they still pose a threat and they can share information, technologies and capabilities with non-state actors. Indeed, a recent report on biological weapons by the National Intelligence Council stated that more than a dozen states are known to possess or are actively pursuing offensive biological capabilities. Perhaps not surprisingly, most of the so-called "rogue" states feature on this list.

It is difficult to generalise about state intentions, development or possible use or delivery of weapons of mass destruction (WMD) because they differ from state to state. While it is true that greater resources to develop these weapons are available to state actors than non-state actors, usage by states remains constrained to an extent by the possibility of retribution and retaliation. The same does not tend to apply to non-state actors.

Traditionally, terrorism has been a political tactic, used by its practitioners to bully their way to the negotiating table. It has been a low-cost, high-leverage method that has enabled small nations, sub-national groups and even individuals to circumvent the conventional projections of national power. However, some of today's groups, motivated by radical religious or nationalist beliefs, no longer seek a seat at the table, but would prefer to blow it up and build something else in its place. The best example of this is Osama Bin Laden and his *al-Qaida* organisation. In effect, Bin Laden is the chief executive and chief financial officer of a loosely affiliated group of radical terrorists, who share resources, assets and expertise, and who can come together for an operation and then disperse. *Al-Qaida* is simply the most visible head of a hydra.

Over the years, terrorists have become expert at using conventional weapons, such as explosives and firearms, to maximum effect. These have been and will continue to be their preferred weapons. They are cheap, easy to obtain and use, do not require extensive scientific capabilities to produce or employ, are "low profile" and hard to defend against. Moreover, terrorists are increasingly innovative in their methods of employing these weapons, and those methods have become more lethal.

Terrorists have also shown an increased interest in obtaining and using weapons of mass destruction. Indeed, Bin Laden has publicly pronounced that he considers it his religious duty to obtain them. The use of chemical weapons would be devastating but does have limits. The effects of a chemical agent are immediate, but it is possible to turn victims into patients by rapidly administering antidotes. The use of radiological or nuclear weapons by terrorists is less likely. The process of research, development and deployment of these weapons by non-state actors is extremely complex. The infrastructure required is difficult to hide or move — particularly for a non-state actor — and there are numerous ways to detect their development using existing methods and technologies. The danger here is that terrorists could either be given materials or weapons by a sympathetic state, could steal them from a poorly guarded facility, or could even buy them from a disgruntled or poorly paid guard or scientist.

Biological weapons give greatest cause for concern. There is a significant difference between biological and other threats because with a biological attack it may not be possible to work out when, where, or how it was launched for some time after the event. The added complexity of the biological threat lies in the highly infectious nature of many of its agents — such as diseases like smallpox or the plague — which multiplies the initial effect exponentially if allowed to spread through a population. These "silent killers" cannot be seen, do not announce themselves until symptoms arise, and the onset of those symptoms is often delayed until long after the initial exposure. This uncertainty, in contrast to the visible, finite explosion of a bomb, can cause considerable panic and paranoia, in addition to fatalities. These infectious agents best demonstrate the importance of building a system that not only provides options for a single threat but also tools to handle a variety of possibilities. As the threat is multifaceted, so too must be the defence.

The nightmare scenario is that of a terrorist organisation using a combination of attacks, or that of a state actor and non-state actor working in unison. This could be the release of a toxin in a shopping mall, coupled with the blowing up of a power plant to deprive an area of energy and hacking into the phone system to stymie communications. A low-tech, high-tech combination is a dangerous possibility, for while Bin Laden may have his finger on the trigger of an AK-47, his nephew may have his finger on a computer mouse. This simple, but horrific example demonstrates the need for an integrated, comprehensive approach rather than one trying simply to isolate and counter a single threat.

The events of 11 September and the subsequent anthrax attacks have shown that, in addition to maintaining vigilance on traditional fronts, greater attention and resources must be paid to the terrorist threat. Prior to 11 September, there was no consensus on what constituted the primary threat to the United States. Some thought it was terrorist

attacks against US military installations abroad, others believed it was the rise of China, another faction a North Korean attack on South Korea and another, a rogue state firing a missile at the United States. Even now, while there is consensus on terrorism being the overriding threat, there is some dissent on what form it might take. The public is overwhelmingly concerned with biological attacks, specifically anthrax. As a result of these concerns and the fact that its own employees were targets of anthrax attacks, Congress has focused on biological agents. The Pentagon, by contrast, is primarily concerned with protecting its personnel abroad and with a possible inter-continental ballistic missile attack. Despite these differing perceptions, it is important not to focus solely on one aspect of the problem to the detriment of capabilities in others and consequently invite attacks in those areas where we are the least prepared.

In moving forward, it is important to find answers to a series of difficult questions. Are our existing structures, policies and institutions sufficient? And what has been done right and what needs improvement? The time has come for a cold-eyed assessment and evaluation of current approaches that considers and appreciates what has worked, what has not worked and what has not been adequately addressed. Only then is it possible to go on to the next step of crafting an effective counter-terrorism strategy.

While WMD terrorism is a cross-cutting phenomenon, government is organised vertically. Clearly, government must adapt to be able to cope and manage the myriad of multi-dimensional issues that WMD terrorism poses. “Stove-piping” will not work. Effective organisation is the concept that not only lies at the heart of a comprehensive national counter-terrorism strategy but also underpins it from start (meaning pre-event preventive, pre-emptive and preparedness measures) to finish (meaning post-event crisis and consequence management and response). Currently, an artificial line is drawn between crisis management and consequence management. This distinction has proved unworkable in practice. Crisis management (immediate response and apprehension of perpetrators) and consequence management (treating mass casualties and restoring essential services) occur simultaneously and must be dealt with simultaneously.

Our concept of national-security planning needs to be broadened to encompass WMD counter-terrorism as well as critical infrastructure protection, such as telecommunications, electric-power systems, oil and gas, banking and finance, transportation, water-supply systems, government services and emergency services. We need to recognise that no single federal agency owns this strategic mission, that national security is no longer the exclusive responsibility

of those agencies that have traditionally been tasked with it. New players must be introduced, including health and human services, state and local authorities, and the private sector. All assets must be integrated and brought to bear. At present, however, many agencies are acting independently. This produces overlap and confusion about authority, duplication of capabilities, incompatible systems and wasted expenditure, and needlessly raises the risk. Many state and local governments and federal agencies have made progress in their preparations for dealing with terrorist attacks. What they lack is cohesion. We need to build on those centres of excellence that do exist and weave them into a cohesive and comprehensive national strategy. In this respect, President George Bush’s call, prior to the events of 11 September, for Vice President Dick Cheney to establish a national plan and create an Office of National Preparedness was exemplary. Moreover, this momentum has been maintained with the creation of the Office of Homeland Security under former Pennsylvania Governor Tom Ridge.

While Bin Laden may have his finger on the trigger of an AK-47, his nephew may have his finger on a computer mouse

All capabilities have to be included in this effort. The medical, public-health and human-services communities are especially critical to bioterrorism preparedness and response. It can take days, or even weeks, for the symptoms of biological agents to manifest themselves. In this case, the first responder, the very tip of the spear, is likely to be a primary-care physician, healthcare provider, veterinarian, agricultural inspector, pathologist or even perhaps an entomologist. Here again, the need for effective organisation is in marked contrast to the current state of affairs. That said, the response to the ongoing anthrax attacks has been admirable. It has demonstrated the need to bring new players to the table and provided timely lessons on how to improve responses.

Perhaps the most important tool in counter-terrorism is intelligence. Accurate and timely information, coupled with proper analysis is the lifeblood of the campaign against terrorism. Every aspect of the campaign from diplomatic, military, financial and political operations to the provision of warnings about future attacks relies largely on our intelligence. More specifically, the breadth, depth and uncertainty of the terrorist threat demands significant investment, coordination and re-tooling of the intelligence process across the board for the pre-attack (warning), trans-attack (pre-emption) and post-attack (“whodunit”) phases. Multi-disciplinary intelligence collection is crucial to provide indications and warning of a possible attack — including insights into the cultures and mindsets of terrorist organisations — and to illuminate key vulnerabilities that can be exploited and leveraged to prevent, pre-empt and disrupt terrorist activities. To date, signals intelligence has provided decision-makers with most operational counter-

terrorism intelligence. While a robust technical intelligence capability is important, enhancing our human intelligence capability is even more so. Here, the United States needs to strengthen its partnerships with foreign intelligence services.

While it is impossible to negotiate directly with extremists like Bin Laden, diplomacy does play a major role in combating terrorism. The shift away from political and towards ideologically based terrorism means that many more countries have become direct targets of escalating acts. As a result, many countries now have a vested interest in studying terrorism. Indeed, many already possess a breadth of knowledge and experience on the subject that the United States should draw on. Cooperative pursuit of common interests is a hallmark of good diplomacy and often leads to further cooperation on other issues.

A comprehensive counter-terrorism strategy should incorporate a full spectrum of activities, from prevention and deterrence to retribution and prosecution to domestic-response preparedness. All too often, these elements of strategy are treated in isolation. Such a strategy must incorporate both the marshalling of domestic resources and the engagement of international allies and assets. And it requires monitoring and measuring the effectiveness (“benchmarking”) of the many programmes that implement this strategy, so as to lead to common standards, practices and procedures.

A complete WMD counter-terrorism strategy involves both preventing an attack from occurring — including deterrence, non-proliferation, counter-proliferation and pre-emption — and preparing federal, state, local, private-sector and non-governmental capabilities to respond to an actual attack. In short, our counter-terrorism capabilities and organisations must be strengthened, streamlined and then synergised, so that effective prevention will enhance domestic-response preparedness and vice versa.

In conducting this assessment and evaluation and in constructing a national strategy, all possibilities have to be considered. We cannot protect against everything, everywhere, all the time from every adversary and every modality of attack. We must prioritise with the understanding that vulnerable areas will remain. And we must accept these vulnerable areas, minimise them and not allow them to hinder our efforts. What we will find, though, is that this investment will have beneficial secondary and tertiary effects. Most of the institutional changes we make to improve organisation, cooperation and coordination will be beneficial across the board, not just for WMD incidents. Strengthening the ability to deal with extraordinary, and especially catastrophic, events provides tools and capabilities that are equally valuable in dealing with “ordinary” situations, such as natural outbreaks. Preventive measures, designed to address nightmare scenarios, also have utilitarian, day-to-day, functions and benefits.

Within the federal government, we must develop for counter-terrorist purposes smooth channels of inter-agency and intra-agency coordination and cooperation. Many agencies have had little experience working together, such as the intelligence community and the defence, justice, health and human services, agriculture, and energy departments, as well as the Federal Emergency Management Agency and the National Institute of Health. Certainly, we need to envisage a better partnership between the Federal Emergency Management Agency and the Health and Human Services, one capable of galvanising the public-health and medical sector in response to bioterrorism. Further, and with specific regard to the private sector, the expertise of the commercial pharmaceutical and biotechnology sectors has yet to be genuinely leveraged.

The United States needs to develop integrated surge capabilities for the entire health-care system. We must first identify all existing assets and how they could be mobilised. Next, we need working strategies to be able to balloon care-giving efforts, at both the regional and national levels. Additionally, we need to reach out to the international health-care community to coordinate efforts and provide a global epidemiological surveillance and monitoring capability with the resources to respond immediately to a crisis. Monitoring global infectious diseases helps build expertise and research and can provide advance warning for a bioterrorist event. Here, too, is an example of where immediate strengthening of resources for national and international security purposes would have immediate secondary and tertiary benefits.

Biological agents also demonstrate more clearly why statecraft is of paramount importance. Many biological and chemical agents can be developed clandestinely, making the detection of programmes and/or acquisition of biological/chemical capabilities so vexing, as seen in Iraq. Furthermore, given that most biotechnology research and development is dual-use in nature, it is possible to wrap efforts to acquire offensive biological agents in a cloak of legitimate research. The danger of theft from Russia or of countries sharing information, technologies or materials with terrorists is considerable.

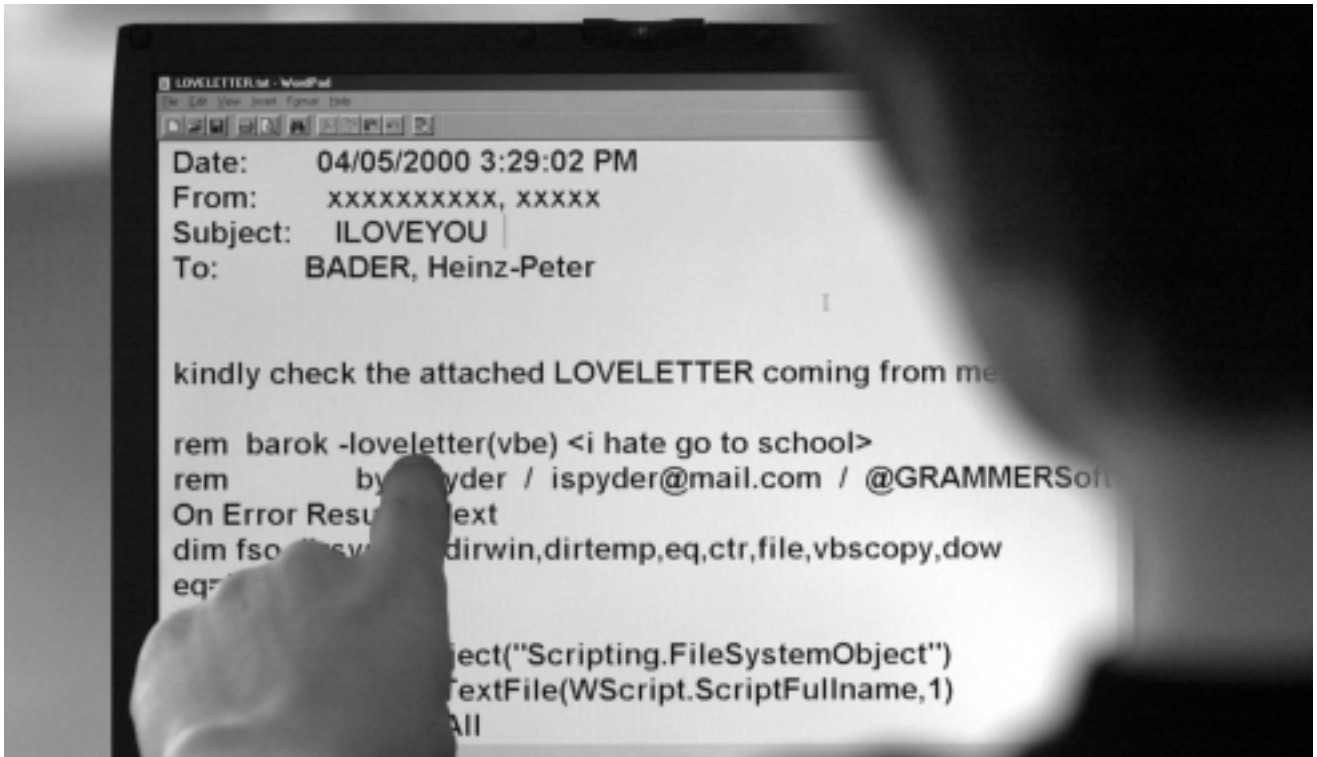
The task is enormous and requires efforts on many fronts: law enforcement, military, intelligence, finance, diplomacy, homeland defence, and health care. This effort of statecraft must bring together the greatest possible international coalition and marshal all available resources to face this challenge. We cannot shy from it because of its magnitude. We can, and must overcome it.



CSIS analysis of the terrorist threat and responses, including details of an exercise simulating the effects of a bioterrorist attack on the United States, can be found at: www.csis.org

Countering cyber war

Timothy Shimeall, Phil Williams and Casey Dunlevy argue that defence planning has to incorporate the virtual world to limit physical damage in the real.



Viral attack: Disruption of information infrastructures is an attractive option for countries that lack the capacity to compete on the traditional battlefield

For many, the term cyber war conjures up images of deadly, malicious programmes causing computer systems to freeze, weapon systems to fail, thwarting vaunted technological prowess for a bloodless conquest. This picture, in which cyber war is isolated from broader conflict, operates in an altogether different realm from traditional warfare and offers a bloodless alternative to the dangers and costs of modern warfare, is attractive but unrealistic. Such a scenario is not beyond the realm of possibility, but it is unlikely. Cyber warfare will almost certainly have very real physical consequences.

As computer technology has become increasingly integrated into modern military organisations, military plan-

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ners have come to see it as both a target and a weapon, exactly like other components and forces. Like other elements of the modern military, cyber forces are most likely to be integrated into an overall battle strategy as part of a combined arms campaign. Computer technology differs from other military assets, however, in that it is an integral component of all other assets in modern armies. From this perspective, it is the one critical component upon which many modern militaries depend, a dependence that is not lost on potential enemies.

Countries around the world are developing and implementing cyber strategies designed to impact an enemy's command and control structure, logistics, transportation, early warning and other critical, military functions. In addition, nations are increasingly aware that the use of cyber strategies can be a major force multiplier and equaliser. Smaller countries that could never compete in a conventional military sense with their larger neighbours can develop a capability that gives them a strategic advantage, if properly utilised. As a RAND Corporation study pointed out in the mid-1990s, the entry costs for conducting cyber war are extremely modest. Not surprisingly,

therefore, countries that are not as dependent on high technology within their military establishment consider such dependence a potential “Achilles heel” for their enemies.

Advanced, post-industrial societies and economies are critically dependent on linked computer information and communication systems. Sophistication has itself become a form of vulnerability for enemies to exploit. Disruption of civilian infrastructures is an attractive option for countries and non-state actors that want to engage in asymmetric warfare and lack the capacity to compete on the traditional battlefield. Indeed, so important are information infrastructures that more and more nations consider an attack against them the equivalent of a strategic strike.

Traditional lines between war and peace are becoming blurred. This development was presaged by the Cold War, but is even more obvious in the war against terrorism in the wake of the 11 September attacks on the World Trade Center and the Pentagon. It suggests that the computerised information systems of NATO member states are likely to be the continuing target of attacks by a non-traditional enemy, whose main goal is physical destruction and disruption and who is likely to exploit vulnerabilities wherever they are to be found.

In this connection, it is worth emphasising that cyber war is not the defacement of web sites owned by a rival nation, organisation or political movement. Even when they accompany other tensions or hostilities — as they did during NATO’s Kosovo air campaign in 1999 — such attacks on web sites are best understood as a form of harassment or graffiti and not as cyber war *per se*. There are, nevertheless, several levels of cyber war, of which three stand out: cyber war as an adjunct to military operations; limited cyber war; and unrestricted cyber war.

When modern military establishments are involved in military hostilities, a key objective is to achieve information superiority or information dominance in the battle space. This requires suppressing enemy air defences, blocking and/or destroying radar, and the like. The aim, in Clausewitzian terms, is to increase the “fog of war” for the enemy and to reduce it for one’s own forces. This can be achieved through direct military strikes designed to degrade the enemy’s information-processing and communications systems or by attacking the systems internally to achieve, not denial of service, but a denial of capability. In effect, this form of cyber warfare focuses almost exclusively on military cyber targets.

In a limited cyber war, the information infrastructure is the medium, target and weapon of attack, with little or no real-world action accompanying the attack. As the medium of attack, the information infrastructure forms the vector by which the attack is delivered to the target — often through interconnections between the enemy and its allies, using links for sharing resources or data, or through wide-area

network connections. Alternatively, an inside agent might place malicious software directly on the enemy’s networks.

As the target of attack, the infrastructure forms a means by which the effectiveness of the enemy is reduced. Networks facilitate organisational missions. Degrading network capacity inhibits or prevents operations that depend on the network. Degrading the level of service on the network could force the enemy to resort to backup means for some operations, which might expose additional vulnerabilities. Degrading the quality of the data on a network might even force the enemy to question the quality of the information available to make decisions. As the weapon of attack, the infrastructure could be perverted to attack itself — either via the implantation of multiple pieces of malicious software, or via deliberate actions that exploit weaknesses. Limited cyber war of this kind could be designed to slow an adversary’s preparations for military intervention, as part of an economic warfare campaign, or as part of the manoeuvring that typically accompanies a crisis or confrontation between states.

More serious, and perhaps more likely, than limited cyber war is what can be termed unrestricted cyber war, a form of warfare that has three major characteristics. First, it is comprehensive in scope and target coverage with no distinctions between military and civilian targets or between the home front and the fighting front. Second, unrestricted cyber war has physical consequences and casualties, some of which would result from attacks deliberately intended to create mayhem and destruction, and some of which would result from the erosion of what might be termed civilian command and control capabilities in areas such as air-traffic control, emergency-service management, water-resource management and power generation. Third, the economic and social impact — in addition to the loss of life — could be profound.

An unrestricted cyber campaign would almost certainly be directed primarily against the target country’s critical national infrastructure: energy, transportation, finance, water, communications, emergency services and the information infrastructure itself. It would likely cross boundaries between government and private sectors, and, if sophisticated and coordinated, would have both immediate impact and delayed consequences. Ultimately, an unrestricted cyber attack would likely result in significant loss of life, as well as economic and social degradation.

Denial-of-service attacks would take on new meaning where the services do not simply provide access to the internet but are systems supporting critical, national infrastructures; systems that are not designed for prolonged outages. A chronic loss of power generation and transmission capabilities, for example, would have a major impact on medical and other emergency services, communications capabilities and the capacity to manage. A failure of emergency services in major cities would not only result in the

deaths of those requiring such services but also in a loss of confidence in the government's ability to provide basic services and protection. As it became apparent that the attack was impacting other infrastructure such as communications, transportation and water, the levels of fear and loss of confidence would begin to impact the basic social fabric. Attacks against the financial infrastructure would erode the capacity of business to function normally and raise questions among the public about the security of their personal finances, including retirement accounts, investments and personal savings. Military networks, all of which utilise commercial communications pathways, would also be hampered, undermining command and control, logistics and both preparedness and operations. In unrestricted cyber warfare, virtual attacks can have consequences that are real, profound and far-reaching.

The irony is that those nations, like the United States and its NATO Allies, that have the capacity to excel in cyber war as an adjunct to military operations — and can achieve information dominance over the battlefield — are also those most vulnerable to unrestricted cyber war. There are, however, measures that can be taken to reduce these vulnerabilities.

Cyber warfare is not fundamentally different from conventional, physical warfare. When conducted by a nation state, it is integrated into a defined strategy and doctrine, becomes part of military planning and is implemented within specific parameters. Consequently, it is subject to analysis and warning in much the same way as other military operations. Indeed, there are several ways of reducing vulnerability to cyber war. These include anticipation and assessment, preventive or deterrent measures, defensive measures and measures for damage mitigation and reconstitution.

The Clausewitzian notion that war is an extension of politics by other means provides the basis for the development and implementation of a reliable warning system for cyber threat. Prior to an attack, whether cyber or conventional, there is usually an element of political confrontation. Awareness of an escalating political conflict, recognition and analysis of developing cyber-warfare capabilities, and detection and assessment of attack precursors all provide warnings of impending cyber attacks. While still being developed, methodologies to provide warning can be combined with coordinated and sophisticated survivability strategies to increase the likelihood of recognition, response and recovery from a concerted cyber attack.

Warning methodologies are all the more important because of the difficulties inherent in identifying and assessing a sophisticated cyber attack. Differentiating a network attack from accidental factors (such as a surge in demand for certain information on the network) or implementation mistakes (such as errors in the portion of a server's operating system that processes network traffic) is neither quick nor easy. Moreover, even when it is clear that an

attack is underway, the defender must correlate multiple pieces of information (each of doubtful quality) to gain a better understanding of the actions involved in the attack, before deciding how best to respond. The degradation of network service, data quality or capacity makes this difficult, especially if the data on the network cannot be trusted.

Preventive or deterrent measures are difficult in the cyber world, partly because of the ability of attackers to remain anonymous. An unrestricted cyber-war offensive, however, would almost certainly provide some clues as to their identity. One of the issues for decision-makers in NATO countries for the future will therefore be whether such attacks lead simply to cyber retaliation or to retaliatory actions in the physical world, or both. Notions of linkage, escalation and deterrence that were familiar during the Cold War have to be re-examined in relation to new kinds of contingencies. Indeed, it might be that strategies of deterrence could have an impact in cyber space — at least against unrestricted offensives.

Defences can also be developed with some expectation of success. In the near term, modern network attack almost always favours the aggressor. In the long term, this advantage may shift to the defenders, as they identify the means of attack and block them by patching vulnerabilities and insulating network connections. Moreover, information networks can be made more robust. Essential network services can be isolated in order to maintain mission capability. Physical security and personnel training can minimise the threat of malicious insider activity. And firewalls and intrusion detection systems can be configured in such a way as to provide warning and response systems for both public and private infrastructures.

Finally, it is necessary to develop a capacity for damage mitigation and reconstitution. Network design should integrate notions of robustness and survivability (based in part on the availability of other means to perform critical missions), while contingency plans for the continued implementation of critical roles and missions with far less cyber connectivity are essential. Insulated intranets that can operate efficiently and safely without wider connections offer considerable promise in this respect.

All this is, of course, easier said than done. The obstacles to enhanced network survivability are many and varied. Security is often an afterthought rather than an integral part of network design. Government and business have different approaches to security and its provision. Dependence on computer networks often goes unquestioned. And the lines of responsibility in government are often blurred and confused by overlapping and competing jurisdictions. Yet all these difficulties can be overcome with a mixture of political will, organisational commitment, careful planning and systematic implementation. Defence planning needs to incorporate the virtual world, if there is to be any chance of limiting physical damage in the real world. ■

Towards a new strategic partnership

Willem Matser examines NATO–Russia relations in the wake of 11 September and the prospects for improved cooperation.



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Moscow meeting: The *rapprochement* of recent months has made it possible to bring far-reaching proposals to the table

Few events bring people together more effectively than a tragedy and few tragedies have been greater or their consequences more wide-reaching than that of 11 September. In addition to the several thousand Americans who lost their lives, close to 800 citizens of other NATO countries and nearly 100 Russians died as the twin towers of the World Trade Center collapsed, watched live on television by millions around the world. In the wake of this shared disaster, the unity of purpose of Allies and Russia in the face of a common threat has been a key feature of the international coalition's war on terrorism. Moreover, the shuttle diplomacy, summits and flurry of new proposals of recent months have clearly opened up great opportunities for closer cooperation and a deeper relationship between NATO and Russia.

It is not, of course, the first time that expectations for NATO–Russia relations have been so great. In 1997, by

Willem Matser works in NATO's Office of the Special Adviser for Central and Eastern Europe.

signing the NATO–Russia Founding Act on Mutual Relations, Cooperation and Security, the heads of state and government of NATO and Russia committed themselves to “the goal of overcoming the vestiges of earlier confrontation and competition and of strengthening mutual trust and cooperation, thus marking the beginning of a fundamentally new relationship between NATO and Russia and intending to develop a strong, stable and enduring partnership”. Moreover, the NATO–Russia Permanent Joint Council (PJC) was created to provide “a mechanism for consultations, coordination and, to the maximum extent possible, where appropriate, for joint decisions and joint action”.

Since then, NATO–Russia relations have seen many highs and lows. In the course of this journey, the many personalities involved have played their part, as have shifting political paradigms and pressing security challenges, including the Balkan conflicts, the first Chechen War, NATO's Kosovo campaign, the second Chechen War and now the international coalition's war on terrorism.

In attempting to place the NATO-Russia relationship on a sound footing, therefore, it is important to examine where, when and how it has turned sour in the past and to determine whether certain lessons can be learned for the future. Such an analysis should perhaps have been made earlier. But until very recently, it was precluded by the political baggage weighing on the NATO-Russia relationship in general and the functioning of the PJC in particular.

To appreciate fully the current situation and to assess the nature of the difficulties that have to be overcome, the NATO-Russia relationship has to be viewed in its historical context. It is, after all, only a little over a decade since the end of the Cold War and attitudes from that period have continued to influence thinking. Although some individuals at the very top of Russian society were eager to pursue a pro-Western agenda in the early 1990s, many senior officials found it difficult to come to terms with the demise of both the Warsaw Pact and the Soviet Union and the loss of super-power status that this entailed. Indeed, in many cases, they found it humiliating to have to continue to deal with NATO, the “victorious Cold War adversary”, as they saw it. Many in Russia viewed NATO’s very continued existence as a betrayal. If the Soviet Union and the Warsaw Pact – the “threats” NATO was formed to counter – had ceased to exist, they wondered, why was a Western military alliance still necessary?

As Russia struggled to integrate itself into Western institutions and economic hardship dashed the dreams of capitalist prosperity for ordinary Russians, disillusionment set in. At the same time, NATO failed to find the right tone for developing its relationship with Russia and was therefore unable to convince the Russian bureaucracy of its positive intentions. Russian foreign and defence ministry officials were disappointed to find themselves treated no differently than their counterparts from former Warsaw Pact countries and other former Soviet constituent republics in the North Atlantic Cooperation Council, the predecessor of today’s Euro-Atlantic Partnership Council (EAPC). The decision by Allied leaders, at the 1994 Brussels Summit, to reaffirm that NATO’s door was open to new members, followed by the commissioning of a Study on Enlargement in 1995, contributed further distrust to the relationship. In Russian eyes, not only had NATO outlived the threats that had given birth to it, but it was also expanding its military and political influence ever closer to the Russian border.

The appointment of Primakov as foreign minister in 1996 was a turning point and led within a year to the sign-

ing of the NATO-Russia Founding Act. From the moment Primakov took charge of the foreign ministry, Russia’s foreign and security policy became more cohesive and assertive. Indeed, one objective underlying the NATO-Russia Founding Act was that of ensuring that Russia had a voice in the key Euro-Atlantic security institutions and influence on their decision-making processes. Since the PJC was supposed to include mechanisms for both joint decision-making and joint action, Russia viewed it as an opportunity to exert such influence.

Despite early optimism, however, it rapidly became clear that the PJC was not functioning as intended. Some of the PJC’s shortcomings could be attributed to cultural differences. NATO functions on the basis of consensus and has therefore always had a bottom-up approach to collaboration. This presupposes an ongoing process of informal consultations among the Allies’ Permanent Representations at NATO headquarters in order to smooth the way towards agreement, including, in some instances, agreement to avoid particular areas of discord. Despite promoting the PJC, however, Primakov decided not to establish a permanent presence at NATO headquarters. This decision, when viewed in conjunction with Moscow’s top-down approach to collaboration, was critical, as it severely limited potential Russian participation in this consensus-building process.

An even greater obstacle, however, was the reluctance on both sides to overcome Cold War stereotypes. Russia, driven by Primakov’s aspiration to restore his country’s great-power status in a “multi-polar” world, remained focused on obstructing Alliance solidarity. Allies responded by requiring that no discussion with Russia could proceed without a formally agreed NATO position. For the Russians, denied the opportunity to influence Alliance policies before decisions had been taken, the “nineteen-plus-one” format became “nineteen-versus-one”, and NATO-Russia exchanges often amounted to no more than repetitions of well-known positions. The PJC ceased meeting early in 1999, when Russia walked out in protest over NATO’s decision to wage an air campaign to stop ethnic cleansing in Kosovo. This freezing of NATO-Russia relations was, however, above all confirmation of pre-existing difficulties in the relationship and diverging approaches to the PJC.

Although the terrorist attacks against the United States and the process of building an international coalition against terrorism have certainly given the NATO-Russia relationship added impetus and injected a sense of urgency into discussions, the roots of a better relationship pre-date 11 September. Already at the beginning of 2000, the

The terrorist attacks against the United States have given NATO-Russia relations added impetus, but the roots of a better relationship pre-date 11 September

appointment of Vladimir Putin as president of Russia paved the way for a new and more constructive relationship and in May of that year the PJC resumed its activities. Since then, despite Western unease with Russia's operations in Chechnya, NATO and Russia have been able steadily to increase the range and number of joint activities.

By spring 2001, the PJC's work agenda had expanded to cover a wide range of issues of mutual interest, including ongoing cooperation in and consultation on peacekeeping in the Balkans, discussions of strategy and doctrine, and cooperation in arms control, proliferation, military infrastructure, nuclear issues and theatre missile defences, as well as the retraining of discharged military personnel and search and rescue at sea. Indeed, the programme was almost as broad as the one that existed at the end of 1998. In February 2001, after a year of negotiations, NATO Secretary General Lord Robertson was able to inaugurate a NATO Information Office in Moscow. It was in this, more congenial atmosphere, therefore, that Lord Robertson and Russian President Putin had two constructive meetings during the latter part of 2001.

The Putin-Robertson meetings in Brussels in October and Moscow in November, and several meetings between Presidents Bush and Putin during this same timeframe have clearly put both NATO-Russia and Russia-US relations on a new footing. Indeed, in a joint statement following their meeting in Crawford, Texas, in November, the two Presidents pledged that Russia and the United States would "work, together with NATO and other NATO members, to improve, strengthen, and enhance the relationship between NATO and Russia, with a view to developing new, effective mechanisms for consultation, cooperation, joint decision, and coordinated/joint action". Moreover, at the December foreign ministers' PJC meeting at NATO headquarters, NATO and Russia committed themselves to "forge a new relationship" and tasked ambassadors to explore "effective mechanisms for consultation, cooperation, joint decision, and coordinated/joint action".

The *rapprochement* of recent months has made it possible to bring far-reaching proposals to the table, including the institutionalisation of NATO-Russia cooperation "at 20". It has also generated great expectations, on both sides, not all of which are realistic. Establishing mechanisms for meeting with Russia "at 20", without pre-coordinated Alliance positions, does not mean that Russia will secure a veto over Alliance decision-making. The Alliance will continue to function "at 19", and to maintain its freedom of decision-making and action on any issue consistent with its responsibilities under the Washington Treaty. However, where common ground can be found and NATO and Russia are able to work together, it is important to build the necessary mechanisms to make this possible.

Many Western analysts believe that President Putin is currently far ahead of other players in the Russian defence and security community. Some even think that he is overextending himself and thereby making himself vulnerable. Whatever the precise nature of his situation, the pressure for success is high – both for President Putin and for NATO – and the need to deliver concrete achievements will become increasingly important as the Prague Summit approaches and the issue of NATO enlargement begins to loom larger. A carefully considered and coordinated package of visible steps forward could help President Putin bridge the gap with the more conservative elements in his security elite. Moreover, a prudent public information policy is also required, since media expectations and/or speculation risk generating a dangerous level of pressure on what will inevitably be a complex political process.

The fundamental attitudes of many institutional actors in the NATO-Russia relationship have not changed. As a result, "breakthroughs" at the highest political level and/or constructive approaches in informal talks will not automatically be translated into practical achievements. Concrete proposals and programmes will still have to be implemented through the same bureaucratic channels and, in some instances, in spite of them. Although the environment for cooperation appears conducive to progress, success is not assured and high-profile initiatives may not come to fruition soon, or at all. A more realistic approach might therefore be the time-consuming process of pushing forward smaller, formal and informal, but still substantive issues.

Russia's principal objective has not changed. It still wants, above all, to be treated as a mature, influential partner and to have a voice in the key Euro-Atlantic security institutions and in defence and security decision-making. If the Allies are unwilling or unable to give substance to this objective, the backlash could be serious and long-lasting. Although symbolic steps forward can be of value, the process will also need substance. New cooperative mechanisms can help to overcome the mistrust of the past and to streamline our ability to take joint action when appropriate. New mechanisms alone, however, cannot form the basis of a strong, durable NATO-Russia partnership. There must be new attitudes, particularly on the Russian side.

As policy makers and political leaders attempt to seize an historic opportunity, they should understand what is at stake. False moves could seriously undermine the good will that has been built up in recent months and actually set back the relationship. If, however, despite the complexity and sensitivity surrounding this issue, NATO and Russia can come together and forge a new strategic partnership, this will have considerable benefits stretching well beyond the common interests of the two partners. ■

Ted Whiteside: Head of NATO's WMD Centre

Ted Whiteside has headed NATO's Weapons of Mass Destruction Centre since its creation in autumn 2000. He joined NATO's Political Affairs Division in September 1999 as deputy head of the Disarmament, Arms Control and Cooperative Security Section, having served in the Canadian Delegation to NATO and the Canadian Embassy in Bonn.

NATO Review: What is the WMD Centre and why was it set up?

Ted Whiteside: The WMD Centre is an interdisciplinary team in the Political Affairs Division of NATO. It was established in order to support the work of committees and working groups dealing with proliferation issues. The WMD Centre draws its mandate directly from the Alliance's 1999 Washington Summit and the WMD Initiative. There are basically six broad objectives. These are: to ensure a more vigorous debate at NATO leading to strengthened common understanding among Allies on WMD issues and how to respond to them; to improve the quality and quantity of intelligence and information sharing among Allies on proliferation issues; to support the development of a public-information strategy by Allies to increase awareness of proliferation issues and Allies' efforts to support non-proliferation efforts; to enhance military readiness to operate in a WMD environment and to counter WMD threats; to exchange information concerning national programmes for bilateral WMD destruction and assistance — specifically how to help Russia destroy its stockpiles of chemical weapons; and to enhance the possibilities for Allies to assist one another in the protection of their civil populations against WMD risks. As you see from these objectives, the Alliance has a very active programme of work regarding WMD risks and threats, and the Centre is the focal point for support to these efforts.

NR: How does the WMD Centre function? How many NATO staff and how many national experts work there?

TW: There are three international staff and seven national experts. The seven national experts bring with them a very wide experience. We have expertise in chemical weapons, biological agents, ballistic missiles, knowledge and experience in force protection, intelligence, and political aspects of arms control and non-proliferation regimes. We support a number of NATO committees. The two principal ones are the Senior Politico-Military Group on Proliferation and the



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Senior Defence Group on Proliferation. In addition, the WMD Centre actively supports the Senior Political Committee in its work dealing with theatre missile defence, cooperation with Russia and issues related to the Alliance's response to terrorism following the 11 September 2001 attacks against the United States.

NR: How has the WMD Centre's agenda changed since 11 September?

TW: In the wake of 11 September, there is clearly an increased awareness of the potential use of weapons of mass destruction by non-state actors. As a result of this

increased awareness, the Centre has adapted its work programme to the evolving demands of the Committees we support. That said, there is a great deal of continuity in the work of a committee such as the Senior Defence Group on Proliferation — in terms of what it has been doing over recent years to enhance military readiness to operate in a WMD environment. Many of the practical steps that have been taken by Allies with respect to force protection, detection, identification and medical counter-measures can be adapted to the risks associated with the potential use of weapons of mass destruction by non-state actors. We are therefore seeking to build upon existing work and initiatives. Although our agenda has not changed markedly, there is clearly a different emphasis on the risks associated with biological agents. Indeed, we will have to get to know more about the potential use of biological, chemical and radiological devices by non-state actors and to build this in as an important part of our thinking. In addition, we need to review how best to work together to protect civilian populations against these risks.

NR: Media appear obsessed about bioterrorism as a result of the spate of anthrax letters in the United States. How serious a threat is this form of warfare?

TW: The potential use of biological agents by non-state actors is a significant problem. Non-state actors have shown the potential to create and use some of these

weapons. One of the principal characteristics of biological agents that may make their use attractive to non-state actors is their toxicity. Potential use of such agents by terrorist or criminal elements would be extremely disruptive. These agents are insidious, difficult to trace and extremely resource-intensive to counter, both in terms of medical counter measures and law enforcement. Dual-use technology and the widespread expertise associated with modern biological industries exacerbate the difficulties associated with countering this type of proliferation. Although the use and possession of biological weapons have been prohibited since the 1972 Convention on the Prohibition of the Development, Production and Stockpiling of Biological and Toxin Weapons, it remains extremely difficult to implement suitable verification measures. Unlike conventional arms-control regimes where it is possible to count specific objects, such as tanks and artillery pieces, and establish verification benchmarks, this option is not readily available in the case of biological agents. It remains important to pursue efforts to ensure that the 1972 Convention is an effective instrument to counter the growing threat of biological weapons.

NR: What other threats appear most dangerous to you at present?

TW: There are risks related to biological and chemical agents, toxic industrial chemicals, as well as radiological devices. Beyond that, ballistic-missile proliferation remains an issue of serious concern to the Alliance. In this area, the Alliance remains strongly committed to the Missile Technology Control Regime, the Australia Group and the Zangger and Nuclear Suppliers Groups as important elements in our efforts to counter the proliferation of weapons of mass destruction and the means for their delivery.

NR: Is there an emerging Alliance view on proliferation? On missile defence?

TW: The Alliance has recognised since the early 1990s that it is important to strengthen efforts against proliferation. The principal goal remains that of preventing proliferation from taking place, or, should it take place, to reverse it through diplomatic means. Hand in hand with such an approach goes the important role of ensuring an appropriate defence posture against the possible use of weapons of mass destruction. The Alliance's defence posture must have

the capability to address appropriately and effectively the threats that the proliferation of weapons of mass destruction and their means of delivery can pose. It is critical to maintain the flexibility and effectiveness of Alliance forces despite the presence, the threat or the use of nuclear, biological and chemical weapons. In this context, the Alliance draws upon a mix of means to address the challenges of proliferation, including deterrence and offensive and defensive means, and enhancing the effectiveness of arms control, disarmament and non-proliferation, as well as diplomatic and counter-proliferation measures.

NR: Russia has displayed interest in cooperation with NATO on tactical missile defence. What direction could this take?

TW: There have been a number of close and intensive consultations with Russia on missile defence. These consultations will continue in the future and are likely to head in two or three generic areas. Firstly, we can discuss the nature of ballistic-missile development in the world, our understanding of the problem, its scope and the range of efforts to counter it. Secondly, we can discuss concepts, such as a common understanding of the meaning of missile defence, how it can be integrated into the overall concept of Extended Air Defence, how it works in terms of communications and command and control, and what it presupposes in terms of training. And we can also explore potential industrial cooperation that could eventually take place between NATO and Russia on systems that are currently being developed.

NR: Are there any plans to expand WMD Centre activities to include Partner countries?

TW: Partners have already had some consultations with the Alliance on proliferation. There have been specific, in-depth bilateral talks with Russia and Ukraine. There have been general discussions within the Euro-Atlantic Partnership Council and, as in the past, disarmament experts' meetings will continue to take place with Partners. We hope to see this expanded within committee work, so that we can increasingly address the challenges associated with proliferation with all Partners. Contacts and consultations have also begun with Mediterranean Dialogue countries. More work is ongoing to strengthen and deepen all of these consultations. ■



THE NATO SCIENCE PROGRAMME

"Bringing scientists together for progress and peace"



The NATO Science Programme supports collaborative projects between scientists from Allied and Partner countries. The programme – which is not defence-related – aims to stimulate cooperation between scientists from different backgrounds, to create enduring links between researchers, and to help sustain scientific communities in Partner countries.

Full details can be found on the NATO web site: <http://www.nato.int/science>

On the front line

As NATO's Central Asian Partners take up frontline positions in the international coalition against terrorism, Osman Yavuzalp examines the Alliance's relations with these countries.

When it became clear that the 11 September terrorist attacks on the United States had been masterminded by Osama Bin Laden's Afghanistan-based *al-Qaida* network, their ferocity and audacity came as little surprise to the countries of Central Asia. The international community had, of course, been aware of the deteriorating situation in Afghanistan and expressed concern about human rights' violations, the wanton destruction of Buddhist statues and the arrests of international aid workers for allegedly preaching Christianity. But the Kyrgyz Republic, Tajikistan, Uzbekistan and, to a lesser extent, Kazakhstan had experienced first-hand the dangers posed by Afghanistan's Taliban regime, having long suffered consequences of the drugs trade and been victim, since 1998, of several incursions by terrorists linked to *al-Qaida*.

Indeed, the countries of Central Asia had been among the first to draw the world's attention to the deteriorating situation in Afghanistan and the potential risks to international security. As early as 8 September 2000 — a year before the attacks on the United States — Uzbek President Islam Karimov warned the UN General Assembly that: "Afghanistan has turned into a training ground and a hotbed of international terrorism" and that: "The continuing war in Afghanistan stands as a threat to the security of not only the states of the Central Asian region, but to the whole world."

Mindful of the need to restore law and order and to end the suffering of the Afghan people, Tajikistan, Turkmenistan and Uzbekistan have, since 1997, tried to work for a peaceful solution to the Afghan crisis through the so-called "six plus two group" of countries which includes China, Iran and Pakistan, and is supported by both Russia and the United States. More recently, this group met Ambassador Lakdar Brahimi, UN special envoy to the region, in New York on 12 November, on the fringes of the UN General Assembly, for talks about a post-Taliban Afghanistan at which the representatives of the six neighbouring countries expressed support for the formation of a broad-based, multi-ethnic and freely chosen post-Taliban government.

Osman Yavuzalp works on NATO enlargement and relations with the Alliance's Central Asian Partners in NATO's Political Affairs Division.

In the immediate aftermath of 11 September, the countries of Central Asia joined fellow members of the Euro-Atlantic Partnership Council (EAPC) in unconditionally condemning the attacks and pledging to undertake all efforts to combat the scourge of terrorism. Since then, they have made good their pledge by making territory and assets available to the international coalition. Kazakhstan announced its readiness to support the US-led coalition with all the means at its disposal on 24 September. Similarly, the Kyrgyz Republic, Tajikistan and Turkmenistan have made their support for the fight against terrorism clear. And Uzbekistan has become a vital element in the campaign against the Taliban, announcing on 5 October that it would open its air space to US planes and grant landing rights on Uzbek territory for search-and-rescue and humanitarian missions. Given that all these countries have predominantly Muslim populations, their support demonstrates that, contrary to Bin Laden's claims, the international campaign against terror is neither a crusade against Islam nor a clash of civilisations.

The 11 September attacks have demonstrated the indivisibility of security in the Euro-Atlantic area. All countries now face the same threats, whether they be in North America, Europe or Central Asia. Moreover, the attacks and the ensuing campaign against terrorism have also brought into focus the importance of Central Asia to Euro-Atlantic security and the need for closer cooperation between NATO and its Central Asian Partners — not just within the context of the current crisis, but beyond.

Central Asia and Europe have a long history of close interaction. During the 19th century, the region attracted the attention of both British and Russian empires because the Great Silk Road, the major trade route linking Europe to the Far East, passed through it. Today, Central Asia's energy reserves hold out the possibility of great wealth for the development of the region. However, NATO's interest in the region during the past decade is neither the result of Central Asia's history nor its economic potential. Instead, the Alliance has wished to foster security in Central Asia as part of its strategy of building partnerships with emerging democracies, meeting new security challenges and promoting stability throughout the Euro-Atlantic area. Efforts to pursue closer partnership and cooperation through both the Partnership for Peace programme and the EAPC have been of benefit to all.

The Partnership for Peace offers an extensive menu of security-related activities covering areas, such as civil-emergency planning, crisis management, language training, scientific cooperation and the interoperability of armed forces. From this menu, each Partner can pick and choose on the basis of individual requirements and priorities. Moreover, under the terms of the Partnership, NATO Allies will consult with any Partner, at its request, if that Partner perceives a direct threat to its territorial integrity, political independence or security.

Two key principles underpin the Partnership for Peace. First, it is not directed against the interests of a third party. Neutral countries, such as Austria, Ireland, Moldova and Switzerland, are also able to benefit from the wide range of activities offered. Second, it does not seek to substitute or duplicate other cooperative initiatives but rather to complement them, as NATO has always respected the specific interests and regional considerations of its Partners. In Southeastern Europe, for example, countries participate in



a number of parallel, multinational initiatives and have special bilateral relations among themselves, in addition to cooperating with NATO. In the same way, the Alliance is eager to support the various cooperative activities in which some Central Asian Partners participate, such as the Shanghai Cooperation Organisation or the Conference on Interaction and Confidence Building Measures in Asia, and it respects the relations that have been built up with Russia for historical, geopolitical and socio-economic reasons.

On the basis of such understanding, NATO and its Central Asian Partners have been able to embark on cooperative activities in various areas. Structured dialogue takes place between Alliance members and 27 Partner countries on virtually all issues of common concern within the framework of the EAPC. Through this multilateral forum, Central Asian Partners have been able to keep Allies and other Partners informed of developments in their region, since the emergence of Taliban-sponsored terrorism. A

series of regional, security-cooperation seminars addressing Central Asian security issues have also been organised under EAPC auspices. These have been held in the region itself to help NATO Allies and other Partners get a better understanding of conditions on the ground. The first took place in Tashkent, Uzbekistan, in October 1999. The success of this initiative led to a second seminar in Bishkek, the Kyrgyz Republic, in November 2000, and a third in Almaty, Kazakhstan, in September 2001 — only a few days after the terrorist attacks against the United States.

Civil-emergency planning is another key area of cooperation. Central Asian countries are prone to natural disasters, such as earthquakes and floods, and are therefore keen to explore ways of protecting cities and populations located in high-risk zones. Planning for such civil emergencies and preparing the way for civil-military cooperation in disaster-response operations is being facilitated by participation in workshops and activities organised within the framework of the Partnership for Peace. To this end, tailored courses have taken place in the Kyrgyz Republic in 1996, in Uzbekistan in 1999 and in Kazakhstan in 2001.

NATO and its Central Asian Partners are also benefiting from the opportunity to work together in the field of scientific and technological research. Some 120 NATO science and technology grants have been awarded to the five Central Asian countries in the eight years since NATO's Science Programme was opened to Partner-country participation. In October this year, the Science Programme launched a major project, the "Virtual Silk Highway", to provide internet access via a satellite network to the scientific and academic communities of eight countries in Central Asia

and the Southern Caucasus. Other NATO-sponsored science projects in Central Asia include a pilot study on environmental decision-making for sustainable development, launched in February 2001, involving Kazakhstan, the Kyrgyz Republic, Tajikistan and Uzbekistan; projects addressing radioactivity problems at the former nuclear test site at Semipalatinsk in the Sarzhai region of Kazakhstan; and initiatives to tackle pollution in the Aral Sea.

Once the scene of "the Great Game", Central Asia remains a region of crucial, strategic importance at the beginning of the 21st century. However, the zero-sum games of the past have now been consigned to history. Recent events have again demonstrated the wisdom of promoting cooperation, stability and security throughout the Euro-Atlantic area. While the Alliance does not claim to have solutions to all the problems there, or elsewhere, it is increasingly clear that long-term investment in building relationships, improving understanding and enhancing cooperation strengthens security for all. ■

Debate

In the wake of 11 September, where does missile defence fit in security spending priorities?

High:

Keith B. Payne is president of the National Institute for Public Policy, chairman of the Deterrence Concepts Advisory Group of the Office of the Secretary of Defense and adjunct professor at Georgetown University.



Low:

Joseph Cirincione is Director of the Non-Proliferation Project at the Carnegie Endowment for International Peace.



Dear Joseph,

A bipartisan consensus in Washington supports the proposition that missile defence should be a US defence spending priority, and the American public strongly favours missile-defence deployment, as it has for many years. Indeed, approximately two-thirds of the American people believe they already are protected by missile defence. When the truth is revealed, most are not amused.

The most basic reason for making missile defence a priority is the emerging multifaceted ballistic missile threat. The September 1999 public report from the National Intelligence Council, *Foreign Missile Developments and the Ballistic Missile Threat to the United States Through 2015*, projected that: "During the next 15 years the United States most likely will face ICBM [intercontinental ballistic missile] threats from Russia, China and North Korea, probably from Iran, and possibly Iraq." The report also noted that the proliferation of medium-range ballistic missiles "has created an

immediate, serious and growing threat to US forces, interests and allies, and has significantly altered the strategic balances in the Middle East and Asia". The fact that some of those countries pursuing missile programmes are also building nuclear, biological and chemical (NBC) weapons and sponsor/harbour terrorists brings this emerging threat into perspective.

The current proliferation threat generally involves missiles of less-than-ICBM range. This does not suggest, however, that defence against long-range missiles should be a low priority. To the contrary, the bipartisan Rumsfeld Commission concluded in August 1998 that emerging ballistic-missile powers could acquire an ICBM capability within about five years of a decision to do so and, for several of those years, we could be unaware that such a decision had been made. We have been duly warned of the potential for the rapid emergence of additional ICBM threats. In some cases, such as North Korea, the clock already appears to be ticking and a leisurely response would be unwise.

Even if the broader missile threat is between five and 15 years away, we are unlikely to have a mature defence when that threat is clear and immediate, unless we have a robust programme now. To await the blatant emergence of a North Korean, Iranian and/or Iraqi NBC-armed ICBM before making missile defence a high priority would be to risk an extended period of unprecedented vulnerability.

In addition, Secretary of Defense Donald Rumsfeld has now stated publicly that a "rogue" state has test fired a ballistic missile at less than intercontinental range from a ship at sea. Consequently, it is a mistake to suggest that the missile threat to the United States is limited to ICBMs.

The fact that rogue missiles may be relatively unsophisticated is of no comfort. Accuracy is not required to threaten or to attack cities. Nor can any credibility be ascribed to the frequent, confident assertion that the chances of a rogue NBC missile attack are low. No one knows the probability of such an event. What

we do know is that a missile strike could kill hundreds of thousands, even millions of American and allied citizens in a single stroke. The probability of such a missile attack is unknown, but the consequences would be catastrophic. Addressing this emerging threat in a timely way must be a high priority.

Missile defence is, of course, not the complete answer to this threat. But it is an essential ingredient in any answer. The terrorist attacks of 11 September illustrate the folly of comfortable and convenient assertions that opponents “won’t dare” extraordinarily high-risk acts. History is littered with deterrence failures because leaderships occasionally are willing to dare. Even during the Cold War, the United States and Soviet Union survived because “we lucked out”, according to Secretary of Defense Robert S. McNamara. The conditions necessary for deterrence to operate reliably are even less likely to pertain in the post-Cold War environment. This is not because “rogue” leaders should be viewed as irrational, but because many of the underlying conditions necessary for the predictable functioning of deterrence that were assumed in the Cold War can no longer be taken for granted.

The missile and weapons-of-mass-destruction (WMD) threat is real and growing. Deterrence is inadequate and, if missile defence is to be available in the foreseeable future, it must be a priority. Fortunately, the President, Congress and public have made it so.

Yours,
Keith

Dear Keith,

The fierce partisan political warfare that has characterised Washington policy issues since the mid-1990s has now thankfully subsided. We all hope that the new spirit

will last beyond the current crisis. But principled disagreements on key issues remain, particularly on missile defence. There is no bipartisan consensus.

Representative John Spratt, a key moderate Democratic leader in the US House of Representatives, told us at the Carnegie Endowment that the Democrats receded on missile-defence issues after 11 September “because we did not want to be in a position of hammering at the administration at this critical time”. Chairman of the Senate Committee on Armed Services Carl Levin writes: “Those of us who have argued that unilaterally deploying a missile-defence system could make the United States less, not more, secure find fresh evidence for our position in the administration’s admirable multilateral response to the recent terrorist attacks.”

There is still a deep divide over the threat, technical feasibility, schedule, cost and strategic consequences of deploying missile defence. As you know, there is considerable agreement on the need to press forward with the deployment of short-range or theatre missile defences. Here, there is a demonstrable threat and a greater chance of eventually getting a system with at least some capability against Scuds, missiles with a range of about 180 km, and their slightly longer-range cousins. The Patriot did not work in the Gulf War — despite initial false perceptions and more persistent false claims — but an improved version will finally be fielded in 2002 and should fare better against simple, short-range threats. The divide over long-range defence, however, continues and not just along party lines. Many officials in the departments of state and defence hold sharply different views on the programme and the utility of remaining in the ABM Treaty. Meanwhile, defence hawks and fiscal hawks in

the Republican-controlled House are split over costs.

One example of this divide — and of the serious technological problems plaguing the programme — is the November decision by the House Appropriations Committee to cancel the satellite system that is vital to long-range missile-defence systems. The Space-Based Infrared System-Low is years behind schedule and programme-cost estimates have grown to \$23 billion from \$10 billion in just the past year, the Committee said. Pentagon officials say that missile defence can’t work without the satellites. The Committee’s Republican leaders say the programme is plagued with technical and design problems and has simply grown too expensive.

This is just one of the dozens of technical problems that committed missile-defence advocates brush aside with bromides about America’s technical abilities. But it will take years before we know if any system will work. As Secretary of Defense Rumsfeld said this July: “We don’t have a system. We don’t have an architecture. We don’t have a proposed architecture. All we have is a couple of handfuls of very interesting research and development and testing programmes.”

While 11 September has not apparently changed the views of either proponents or opponents — and you and I, Keith are two excellent examples — it has changed the diplomatic, political and financial environment profoundly. In this New World, missile-defence programmes are likely to suffer. “Never again will supporters of national missile defence be able to claim, as President Bush did in May, that ballistic missiles in the hands of rogue regimes constitute ‘today’s most urgent threat,’” says Senator Levin. “Ballistic missiles are not the tools of terrorists.... nor are terrorists

Emerging ballistic missile powers could acquire an ICBM capability within about five years of a decision to do so

KEITH B. PAYNE

likely to obtain ballistic missiles for future attacks. When the missile-defence debate resumes, there must be a renewed appreciation that every dollar we spend on the least likely threat of ballistic missiles is a dollar not spent on the most likely threat: terrorism.”

The bills for the new war on terrorism are mounting. The postal service needs billions just to decontaminate its mail facilities; bioterrorism defence will cost tens of billions; airport security billions more; and the military campaign alone will already receive half of the \$40 billion emergency appropriations Congress approved in September. Missile defence will now have to compete with new defence demands, most of which the American people see as addressing more urgent threats. These are not hypothetical “what ifs” but real, already-happened-and-could-happen-again threats.

Homeland defence means increasing security for critical infrastructure including dams, nuclear reactors, chemical plants, bridges, tunnels and stadiums. It means not just stockpiling vaccines, as the president wants, but pouring money into emergency rooms and clinics for more staff, training and detection equipment, as the Congress wants. It has already meant that the United States is fighting a two-front war — in Afghanistan and in the airports and mailrooms of America. Missile defence is irrelevant to both wars. This is a whole new game.

Yours,
Joseph

Dear Joseph,

You dispute my contention that there exists a political consensus for priority spending on missile defence, citing statements from Representative John Spratt and Senator Carl Levin. Selective quotation usually presents a limited picture. But if that is the evidence you appreciate, I should cite the following comments from the same Congressional leaders.

In contrast to your suggestion that there is no “demonstrable” long-range missile threat, Representative Spratt has stated: “I think there is a threat of an accidental, unauthorised, or rogue missile attack, existing and emerging, and I think it would be wise to have a missile-defence system to meet that threat.” And, despite your contention that there is general support only for short-range defences, Representative Spratt speaks in favour of missile defence: “I have long thought that a ground-based defence, deployed at two sites, is our best first step.”

Senator Levin has similarly stated: “I share the goal of providing the American people with effective protection against the emerging long-range missile threat from rogue states.” And, to add weight to my point, note that Senator Joseph Lieberman, the recent Democratic candidate for vice president, has stated: “We need the national missile defence. We face a real and growing threat that cannot be countered by our conventional forces and which will not be deterred by the threat of retaliation.”

Further, you claim that the 11 September terrorist attacks moved the political climate away from support for missile defence. The most recent and definitive proof to the contrary is the actual legislative record. The House Armed Services

Committee report, issued just before 11 September, stated: “The committee endorses the President’s approach to ballistic missile defence, and is encouraged that the proposed missile-defence programme includes plans for a layered defence system and realistic testing, and explores a full range of technologies. As such, the committee endorses the Administration’s missile-defence programme, with modest adjustments, and recommends \$8.2 billion, \$2.9 billion more than the fiscal year 2001 level, for the continued development of ballistic missile defences.” On 25 September 2001 the full House of Representatives ultimately passed, by the overwhelming vote of 398 to 17, the National Defense Authorization Act of 2002. It would provide \$7.9 billion for missile defence, over \$2.5 billion more than the 2001 level, and almost \$1 billion more than the 2002 budget request. The ultimate budget figures for missile defence will obviously depend on the outcome of the ongoing Senate-House conference, and the Senate has proposed lower funding levels. At this point, however, it is clear that the level of spending to be made available for missile defence will be increased significantly over 2001.

The consensus I described has held, and for good reason. 11 September did not fracture the public or political consensus behind missile-defence spending. Instead, it demonstrated just how arrogant and foolish is the “they-wouldn’t-dare-strike-us” attitude and, therefore, how serious is the emerging ballistic-missile threat. The United States need not abandon missile defence to fund other programmes. This is not the either/or choice you would like to pose. As the emerging missile-defence budget and recent \$40 billion emergency anti-terrorism appropriation show, the United States will fund defensive capabilities against a

wide spectrum of threats, including missile attack.

Yours,
Keith

Dear Keith,

I, you, the US Congress, NATO and Russia all support missile defences. But there are wide chasms within that apparent consensus. It all depends on your definition of “missile defence”. Most support research, short-range defences and exploration of national-defence options. There is broad opposition, however, to abrogating the ABM Treaty and pursuing a crash programme to deploy ineffective interceptors.

The budget for missile defence has indeed ballooned this year, but this may be its high-water mark. Political and editorial opinion across the United States and Europe is overwhelmingly in favour of preserving the treaty regime that has helped keep our nations secure for over 50 years and for responsible budgets. For example, the most widely distributed paper in the country, *USA Today*, argued in an editorial on 22 October that: “The missile-defence programme stands as an embarrassing admission that the United States during the past decade has spent considerable time and money attempting to counter the least likely of threats: a rogue nation willing to commit national suicide by launching a nuclear-tipped missile. Neglected was the more urgent threat of low-budget terrorists with rich imaginations.”

For fiscal year 2002, the federal government has budgeted \$1.7 billion to combat WMD terrorism, as part of a \$9.7 billion budget for anti-terrorism efforts overall. Yet we will spend, as you note, \$7.9 billion on missile defence. We must restore some balance.

If Osama bin Laden had a nuclear weapon, few doubt he would use it. But where would he get one? Most likely from the vast, poorly secured stockpiles of materials, weapons and expertise remaining in Russia and other former Soviet states — some within 800 km of Afghanistan. This is why it is so important to secure and eliminate the 20,000 Russian nuclear weapons and 1,100 tons of fissile material, and find jobs for the thousands of unemployed nuclear scientists and biowarfare specialists. We should triple the \$700 million per year the US government spends on cooperative threat-reduction programmes with Russia (and help convince the European Union to start spending some serious money as well). If we did, we could secure and eliminate most of the threat within eight years.

This is the tragedy of the Bush-Putin meeting in Crawford. All the good humour and good food still left the new strategic framework an empty shell. The chance to lock-in binding weapons reductions and to secure Russian arsenals against terrorist thefts was missed because of the positions you and others have championed. Disagreements over a missile-defence system that exists only on paper prevented progress in reducing genuine nuclear threats.

Even after the international coalition smashes *al-Qaida* and uproots its American and European cells, other terrorist threats will remain. There will always be a terrorist demand for weapons of mass destruction. Our best defence is to shrink the supply. This, in the end, is where you and I differ. Missile defence has a role to play in a comprehensive defence. For you, it is the leading role. For me it is a bit player in a larger and more urgent drama.

Yours,
Joseph

Dear Joseph,

I appreciate your endorsement of missile defence and your agreement with my initial point that there is an American political consensus for priority spending on missile defence. No evidence suggests that this political consensus is fracturing. Recent polling data from the Pew Research Center, for example, reveals that since 11 September the already strong public support for defence spending and missile defence has increased.

I agree with you that missile defence is only one of a variety of US and allied security requirements. But, missile defence is essential and there is no necessary choice between it and other security needs, financially or operationally. Congress rightly and obviously will fund missile defence and other requirements. The recent \$40 billion emergency anti-terrorism appropriation, for example, will build on existing civilian and military counter-measures.

We also concur on the need for balance. The existing “imbalance”, however, is in the complete absence of missile defence, the complete vulnerability of the United States and allies to missile attack. No other vulnerability has been accepted with such equanimity. We will seek to rectify this imbalance, so that a future biological or nuclear-armed missile does not find America as unprepared as it was for 11 September. To eschew missile defence now, in the

Missile defence will now have to compete with new defence demands, most of which the American people see as addressing more urgent threats

JOSEPH CIRINCIONE

Missile defence is essential and there is no necessary choice between it and other security needs

KEITH B. PAYNE

face of an obviously emerging missile threat, would be as negligent as not pursuing those non-proliferation and counter-terror measures you rightly endorse.

Your description of the Crawford Summit is curious. In a fully congenial atmosphere, old animosities obviously were demolished. While preserving all START limits and verification measures in effect, President Bush announced unprecedented reductions in US nuclear forces, and Russian President Vladimir Putin followed suit. This breakthrough could take place only by transcending archaic Cold War-style negotiations. Some bemoaned the passing of the Cold War approach, but it had become an obstacle to more amicable political relations and corresponding nuclear reductions. In addition, at Crawford and before, President Bush clearly sought a cooperative resolution of the ABM Treaty question, and President Putin exhibited considerable flexibility. This cooperative resolution appears to be in the making to the chagrin of some missile-defence critics. Crawford reflected a new day in US relations with Russia, and that is for the good.

Yours,
Keith

Dear Keith,

It wasn't the "archaic" arms-control process that blocked nuclear reductions; it was the Republican Congress. Republicans passed legislation prohibiting President Clinton

from doing what President Bush just did. Republicans blocked efforts by President Clinton and President Boris Yeltsin to reduce each side to 2,000-2,500 warheads. The United States and Russia agreed, they just couldn't get Congress to go along.

President Bush essentially embraced the 1997 Clinton-Yeltsin goal, minus the verification that a treaty provides. His figure of 1,700-2,200 is lower only because he will no longer count warheads on submarines and bombers in overhaul as "deployed". With one to two subs in overhaul at any time, each with 192 warheads, this magically lowers the numbers without changing the force. There is less to this "breakthrough" than meets the eye.

Just like missile defence. You insist on trying to wrap this programme in some grand consensus, some overwhelming public desire. But neither exists. Let us move beyond this decades-old debate. Here is where you and I and the rest of the Alliance can agree. Let us pursue an aggressive test programme for missile defence, that will go beyond simplistic demonstration shots to true combat conditions against multiple targets with realistic decoys and realistic re-entry speeds. If such defences work, we can work out cooperative deployment plans that increase US security, not decrease it by starting new conflicts.

All we need are slight modifications to the ABM treaty. The Russians are prepared to agree to permit a new Alaska test range and the testing of radars aboard Aegis ships — the two areas where current tests "bump" the treaty. As Secretary of State Colin Powell just told *The New York Times* magazine: "We can't do this on the basis of personal relations. It has to be on the basis of our national interest over time." Which means, Powell said, "You codify it somehow."

With the ABM-treaty dispute behind us, missile defence becomes just another programme competing for funds and surviving on its own merits. We will preserve the international coalition and the national unity of purpose we now enjoy. It will allow us to work together on reducing the threats we both agree are the most urgent international priority.

Yours,
Joseph

Synopsis: Both debaters agreed that the events of 11 September had highlighted the vulnerability of the United States and its allies to a wide range of security threats demanding urgent attention and increased expenditure. They also welcomed the Congress's approval of \$40 billion emergency appropriations in September and the bipartisan approach to addressing the current crisis. They disagreed, however, over whether the \$7.9 billion earmarked for missile defence for 2002 was the best use of these resources. For Keith B. Payne, it was critical to invest today to plug a massive security gap, namely the ICBM threat, which had been identified by 1998 Rumsfeld Commission. Moreover, there was no conflict between spending on missile defence and on other priority areas. For Joseph Cirincione, the cost, technical feasibility, threat and strategic consequences of missile defence were such that it was a lower priority than areas such as bioterrorism defence, airport security, cooperative threat reduction programmes and deterrence, which had to be addressed immediately.

Missile defence is a bit player in a larger drama

JOSEPH CIRINCIONE

Reassessing the Cold War alliances

Petr Lunak considers how documents discovered in Warsaw Pact archives are influencing and challenging conventional interpretations of the Cold War alliances.

The period since the end of the Cold War has been especially stimulating for historians of that era. Whereas, under normal circumstances, researchers are obliged to wait several decades before classified documents are made public, the demise of the Eastern bloc has been followed by the opening of some former Warsaw Pact countries' archives, which have, in turn, provided hitherto unimagined possibilities for study. In 1999, an international project entitled *Parallel History of NATO and the Warsaw Pact* was established bringing together scholars from both East and West to assess the record of the two alliances during the Cold War. In the process, key controversies – such as the nature of the threat from the Warsaw Pact, the relative importance of nuclear deterrence and the reasons for the collapse of the Eastern bloc – are being re-examined, with new evidence challenging the conventional wisdom.

Traditionally, the danger of the Cold War turning hot was considered to have been greatest in the early 1950s in the aftermath of North Korea's invasion of South Korea. As Konrad Adenauer put it in his memoirs: "Stalin was planning the same procedure for West Germany as had been used in Korea." Indeed, the notion of an imminent Soviet march into Western Europe in the 1950s was advanced by many historians, including the then Czech émigré Karel Kaplan in *Dans les Archives du Comité Central: Trente ans de secrets du Bloc Soviétique* (Michel, 1978). Basing his thesis on an interview with former Czechoslovak Defence Minister Alexej Cepicka, Kaplan claimed that Stalin called upon Eastern Europe's Communist leaders to prepare an invasion of Western Europe at a meeting in Moscow in January 1951.

This interpretation of events has since been challenged by many researchers. Convinced that the Soviet Union was never such a formidable enemy, Czech-born American historian Vojtech Mastny, for example, concluded in *The Cold*



Cold War warriors: The *Parallel History of NATO and the Warsaw Pact* project has brought together scholars from both East and West

War and Soviet Insecurity: The Stalin Years (Cambridge University Press, 1996) that Stalin feared imminent Western attack in Europe, which he believed would come in the wake of a series of Western defeats in Korea. As a result, Mastny argued that what others viewed as a call to prepare for attack against the West should, in fact, be interpreted as a call to pre-

pare for defence of the East.

New evidence, uncovered in the archives of the former Eastern bloc, appears to add weight to Mastny's arguments. In particular, the transcript of the January 1951 Moscow meeting, drafted by Romanian Armed Forces Minister Emil Bodnaras and recently uncovered in Bucharest, seems to confirm the defensive character of Stalin's intentions, an interpretation that is further supported by the fact that no preparation for an invasion of Western Europe was made at the time. Indeed, well into the 1950s, all Europe's Communist armies concentrated on territorial defence. From the Czechoslovak archives, for example, we know that although military exercises did occasionally include offensive operations, they almost never took place outside Czechoslovakia. In the few cases when forays into foreign territory were envisioned, it was only in the framework of a successful counter-attack.

If evidence from the Czechoslovak archives is circumstantial, documents recently found in Poland offer more conclusive proof of the defensive thinking of the Eastern bloc at the time. Drafted when Poland's defence minister was the Soviet Marshall Konstantin Rokossovskij, the Polish Army's 1951 war plan was clearly based on the assumption that Western military invasion was inevitable and therefore focuses on defensive actions to be taken on Polish territory. Haunted by the memory of Nazi Germany's surprise invasion in 1941, Eastern military strategists could not envisage the next war in any terms other than one beginning with a Western attack. Paradoxically, therefore, at a time when Western decision-makers were obsessed with the Soviet threat, Eastern military planners sought nothing more than to contain what they saw as imminent Western invasion.

Petr Lunak is outreach editor in NATO's Office of Information and Press and a Czech scholar participating in the "Parallel History of NATO and the Warsaw Pact" project.

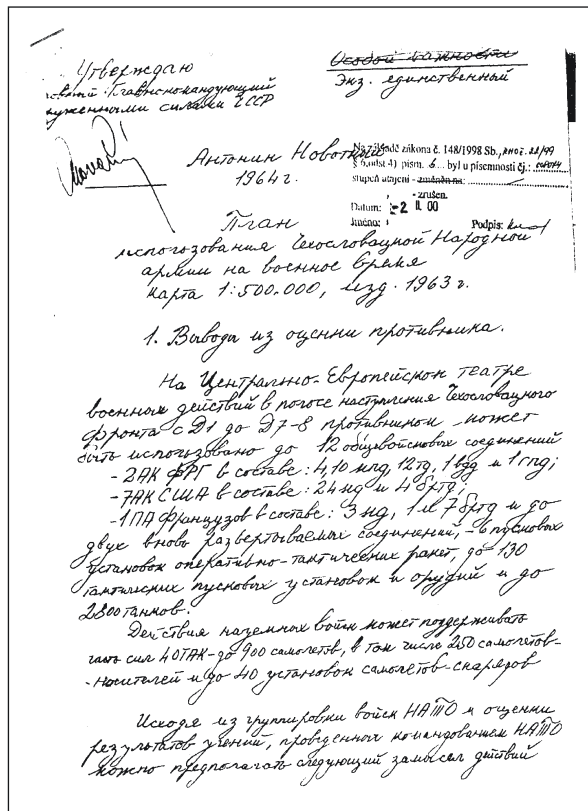
If Soviet intentions in the early 1950s now seem less ambitious than once believed, does this vindicate those who questioned the need for Western efforts through NATO to prevent what was thought to be an imminent Soviet attack? To make such a judgement, it is important to take several additional factors into consideration. Firstly, what we know today is not what Western leaders knew at the time. Secondly, although we now know that Stalin did not wish to repeat the Korean experience in Europe, it is not clear whether his attitude would have been the same had NATO not existed. In fact, his decision to give the go-ahead for the attack on South Korea in the summer of 1950 was probably based on a misreading of the likely US reaction, after then US Secretary of State Dean Acheson had publicly excluded the Korean peninsula from the US security sphere. When the United States intervened in Korea, Stalin could be almost sure that it would also honour its obligations under the Washington Treaty in Europe. If, therefore, NATO's existence failed to deter a communist attack on Korea, it was, nevertheless, indispensable as an insurance policy for the West in its aftermath.

The shift from defensive to offensive thinking in the Warsaw Pact seems, ironically, to have taken place in the period that has traditionally been viewed as a time of improving East-West relations after of Stalin's death. This transformation was closely connected with a reassessment of the role of nuclear arms. Although Stalin was eager to acquire nuclear weapons, he did not consider them a critical, strategic factor because of, among other reasons, their small number. In the wake of Stalin's death, Soviet strategists began to discuss the implications of nuclear war, at a time when nuclear weapons already formed the cornerstone of NATO's doctrine of massive retaliation. In this way, nuclear weapons were belatedly included in the strategic plans of Eastern European armies in the mid-1950s. This discussion and its results are brilliantly described by Herbert Dinerstein in *War and the Soviet Union: Nuclear Weapons and the Revolution in Soviet Military and Political Thinking* (Praeger, 1959) and Raymond Garthoff in *Soviet Strategy in the Nuclear Age* (Praeger, 1958).

As these and other authors have pointed out, there were fundamental differences in the understanding of nuclear

conflict and its potential consequences in East and West. According to Soviet military planners of the time, nuclear weapons would determine the speed of war, but not its entire character. Since nuclear arms considerably shortened the stages of war, Soviet strategists argued, it would be necessary to try to gain the initiative with a powerful, preemptive nuclear and conventional strike. Whereas Western planners never envisaged actions beyond the initial, massive nuclear clash — as can be seen in Gregory Pedlow's edited *NATO Strategy Documents: 1949-1969* (NATO, 1997) — Soviet strategists assumed that their massive strike would prepare the way for a ground offensive. Persuaded of the possibility of winning a nuclear war, Eastern-bloc operational plans viewed such a conflict as a realistic scenario, thereby downgrading any Western deterrent and making war perilously more realistic as a prospect.

This crude military thinking can also be seen in a plan which I uncovered in the military archives in Prague, whose details can be found on the *Parallel History of NATO and the Warsaw Pact* web site and will be analysed in a forthcoming issue of *International Cold War History Bulletin*. According to this document, which dates from 1964, the then Czechoslovak and Soviet military planners anticipated advancing into France within a few days of the outbreak of a war, capturing Lyon on the ninth day and turning Western Europe into a nuclear inferno.



The 1964 Czechoslovak war plan

The 1964 Czechoslovak war plan ignored the possibility of a non-nuclear war in Europe and assumed that the war would start with a massive nuclear strike by the West. Drawn up in the period of détente after the conclusion of the first arms-control agreement, the 1963 Test-Ban Treaty, it shows that the Soviet leaders at this time remained wedded to Leninist notions of an aggressive Western bloc, views that were harboured by Soviet leaders and their Eastern European allies well into the 1980s. The plan is something of a revelation, since it appears that NATO's doctrine of flexible response, which sought to enhance the credibility of deterrence by limiting conflict to a supposedly manageable level, failed to discourage the Soviets from harbouring notions of winning a nuclear war. Moreover, it indicates that the Soviets had no illusions about the possibility of fighting either a conventional or a limited nuclear war.

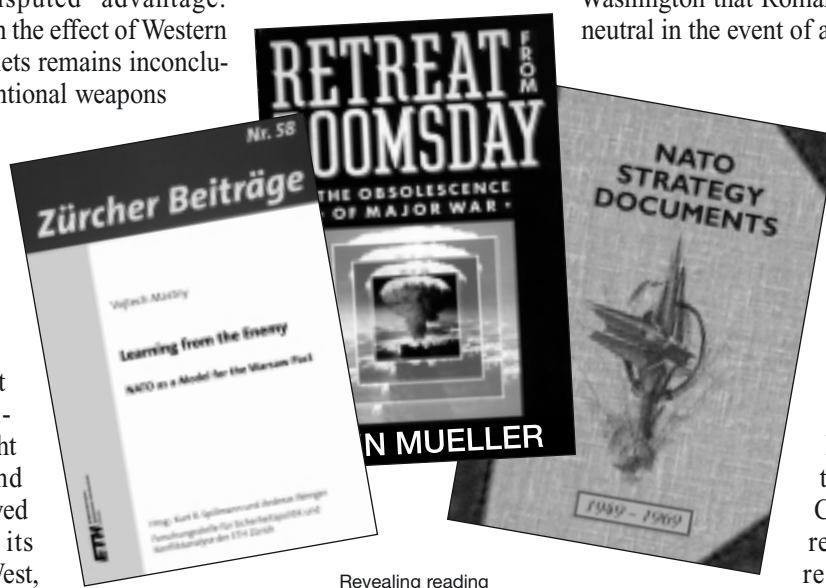
Although US nuclear superiority failed to discourage Soviet leaders from indulging in nuclear brinkmanship during the two major crises of the Cold war – over Berlin in 1961 and Cuba in 1962 – the deterrent effect of Western nuclear weapons has generally been taken for granted. However, as John Mueller suggests in *Retreat from Doomsday: The Obsolescence of Major War* (Basic Books, 1989), Western reliance on nuclear deterrence seems to have been neither the only conceivable, nor even the most reliable way of preventing the outbreak of a Third World War. Indeed, according to documents uncovered through the *Parallel History* project, it even seems that, in the last decade of the Cold War, the Soviets were less concerned about the precise numbers of nuclear weapons on both sides and increasingly worried that they were falling behind in conventional weaponry – especially in the field of high-tech, high-precision weapons – where they had once held an undisputed advantage. Although the debate on the effect of Western deterrence on the Soviets remains inconclusive, the West's conventional weapons and a clear willingness to use them appear to have been at least as effective a deterrent as the threat of nuclear Armageddon.

Is it fair to say that the Eastern bloc collapsed under the weight of its own failures and that the West only played a marginal role in its demise? Or was the West, and more specifically NATO, critical to this event? The answer may be rather subtle. As Mastny argues in his superbly researched *Learning from the Enemy: NATO as a Model for the Warsaw Pact* (Zürcher Beiträge zur Sicherheitspolitik und Konfliktforschung, Nr. 58, 2001), NATO was not only an adversary but, in many ways, a model of how to address the perennial crisis of the Warsaw Pact. However, as Mastny illustrates, the various attempts to emulate NATO in the end deepened that crisis.

The difference between NATO and the Warsaw Pact was as obvious as it was crucial. NATO was created at the request of Western European governments and, in spite of the undisputed leadership of the United States, it was a community of equals. By contrast, the Warsaw Pact was a creation of the Soviet Union in which the other members initially had minimal influence. Indeed, when Nikita Khrushchev created the Warsaw Pact in 1955, allegedly in response to the entry of the Federal Republic of Germany into NATO, the decision to do so was above all a tactical ploy. By proposing the simultaneous disbanding of both

alliances, Khrushchev believed that he could get rid of NATO, while maintaining a system of bilateral defence agreements with Eastern European nations.

Nevertheless, once the Warsaw Pact came into existence, Soviet leaders found it increasingly difficult to resist attempts by Eastern European allies to turn it into a genuine alliance, not unlike NATO. When initial reform efforts failed to generate any tangible results, the inability of the Soviets to accord their allies a more equal status undermined enthusiasm among some Eastern European allies for the newly created alliance. Increasingly, the Soviet Union's Eastern European allies found themselves in a situation in which they were obliged to share the risks involved in Soviet ventures without having a say in managing them. In this way, in the wake of the Cuban Missile Crisis of 1962, we now know that Bucharest secretly let it be known to Washington that Romania intended to remain neutral in the event of a nuclear conflict.



Revealing reading

While reluctant to give the Eastern European allies more say than necessary, Mastny writes, the Soviets realised the necessity of giving the allies a sense of belonging in the wake of growing Romanian dissent and the 1968 invasion of Czechoslovakia. The results of this ongoing reform were, however, mixed. While trying to

satisfy the allies' desire for a more equal alliance, it rapidly became apparent that the Soviets would not be able to give them what they really wanted, namely similar consultation to that which the Western European nations secured through NATO. On the other hand, the Soviets did succeed in educating a Moscow-loyal officer corps by forging a more equal relationship with military establishments in various Eastern European countries. This saved them, for example, from having to invade Poland in the early 1980s, where the immediate crisis was temporarily resolved by the military coup of General Wojciech Jaruzelski. When, however, the last Soviet leader, Mikhail Gorbachev, tried to breathe new life into the Eastern bloc, his hope of marrying a Western-style alliance of equals with a revamped Soviet system only exacerbated the crisis of the Warsaw Pact and hastened its demise.



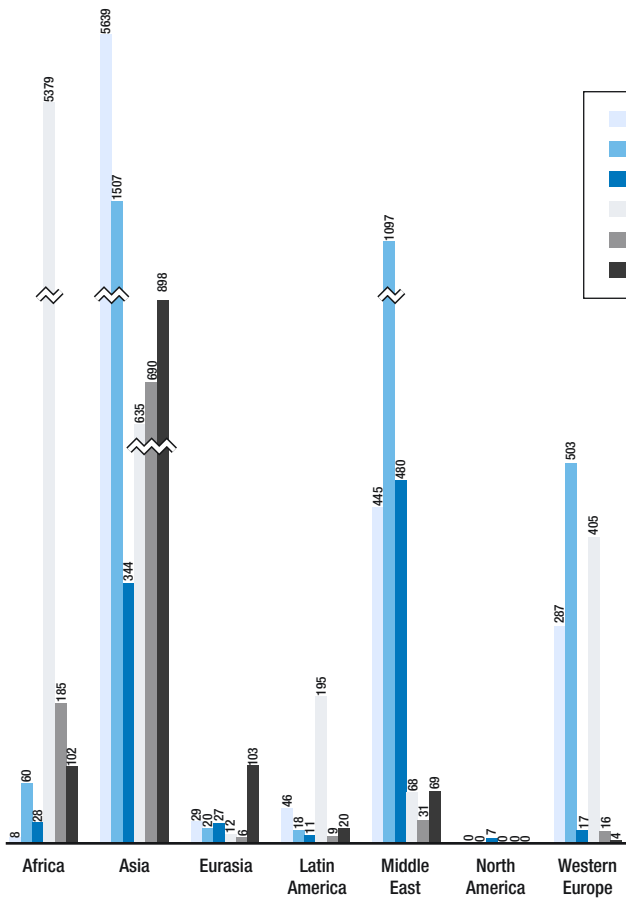
Details of the *Parallel History of NATO and the Warsaw Pact* project, all key documents and results of historical research are available on the internet at: www.isn.ethz.ch/php

International terrorism

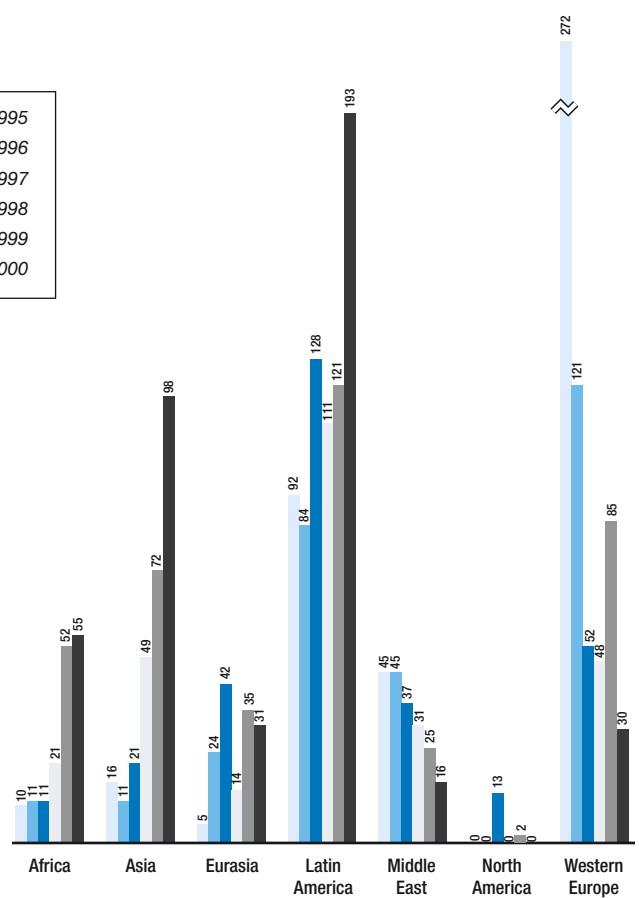
Countries suffering casualties on 11 September 2001



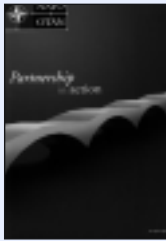
International casualties by region, 1995-2000



International attacks by region, 1995-2000



The above map and statistics come from the web site of the US Department of State: www.state.gov



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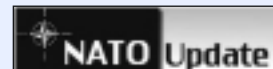


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