



Institute of Defence and Strategic Studies



Future Systems Directorate

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Articles that were obtained from subscriber only sites are available on request. Révolutionnaire is edited by Joshua Ho, Research Fellow, with contributions from Bernard Loo, Manjeet Singh Pardesi and Adrienne Li. If you wish to be a recipient of this bulletin, please contact Joshua Ho via e-mail at <<mailto:ishhho@ntu.edu.sg>>

## **BIOLOGICAL/CHEMICAL/RADIOLOGICAL WARFARE**

### [Radiological Dispersal Devices: Select Issues in Consequence Management](#)

*CRS Report for Congress – 7 December 2004*

The threat of terrorist detonation of a dirty bomb, one type of radiological dispersal device (RDD), has focused public attention on efforts to counter use of this weapon. An RDD attack might cause casualties, economic damage, and, potentially, public panic, though experts disagree on the likely magnitude of these effects. The impact of an RDD attack would depend on many variables, such as meteorological conditions, type and amount of radiological material, duration of exposure, and method of dispersal. Issues of potential congressional interest include the level of federal funding for research and development of medical countermeasures against RDDs and the appropriateness of current standards for environmental decontamination following an RDD attack.

### [Potential Military Chemical/Biological Agents and Compounds](#)

*DOD Multiservice Tactics, Techniques and Procedures – January 2005*

The numerous and diverse chemical and biological materials that U.S. military forces might encounter on the battlefield are catalogued and described in a new manual issued this week by the Department of Defense. "The threat or use of CB weapons is a possible condition of future warfare and could occur in the early stages of war to disrupt United States (US) operations and logistics," the manual states. "In many of the regions where the US is likely to deploy forces, potential adversaries may use CB weapons. Potential adversaries may seek to counter US conventional military superiority using less expensive and more attainable, asymmetrical means. To meet this challenge, US forces must be properly trained and equipped to operate effectively and decisively in the face of NBC attacks."

### [Researchers develop new tool to detect agents of bioterrorism](#)

*American Chemical Society Press Release – 5 January 2005*

Scientists have developed a new "biological smoke detector" to help protect against potential bioterrorist attacks, according to a study published in the Jan. 1 edition of *Analytical Chemistry*, a peer-reviewed journal of the American Chemical Society, the world's largest scientific society. High-traffic facilities like airports, office buildings, rail stations and sporting arenas serve hundreds of thousands of people each day, making them particularly susceptible to silent and invisible biological attacks. Researchers from Lawrence Livermore National Laboratory in California have now developed a new stand-alone detector that can provide early warning to help authorities limit exposure and start treating victims before they show symptoms of full-blown infection.

## **CONTEMPORARY CONFLICT**

### [Transition to and from Hostilities](#)

*Defense Science Board Study – Summer 2004*

For all of its prowess in combat, the U.S. military today is poorly prepared to conduct post-combat stabilization operations, the Defense Science Board observes in a new report to the Pentagon. A series of recommended changes in military forces and operational planning flow from this observation, including the development of improved stabilization and reconstruction capabilities, enhanced strategic communications (the subject of another recent DSB report), and intelligence reform that stresses language capability, area expertise and the skilful exploitation of open source information. Open source intelligence, a field that was largely scanted in recent intelligence reform legislation, is given particular attention by the DSB authors (pp. 147-152).

### [Afghanistan: Post-War Governance, Security, and U.S. Policy](#)

*CRS Report for Congress – 28 December 2005*

Afghanistan is a fragile state that appears to be gradually stabilizing after more than 22 years of warfare, including a U.S.-led war that brought the current government to power. Successful presidential elections held on October 9, 2004 are likely to accelerate stabilization and reconstruction. The report of the 9/11 Commission, as well as legislation passed in December 2004 that implements those recommendations, recommends a long-term commitment to a secure and stable Afghanistan; most of these recommendations already form a major part of the U.S. policy framework for Afghanistan.

### [Obstacles Plague Absentee Voting For Iraqis in U.S.: Polls and Personnel Lacking Three Weeks Before Election](#)

*Washington Post – 10 January 2005*

Just three weeks before thousands of Iraqi immigrants in the United States are to cast absentee ballots in their homeland's first democratic national election in more than a generation, efforts to organize the voting here are beset by delays in planning and logistical obstacles. The team hired by Iraq's electoral commission to run the U.S.-based portion of the election is still scrambling to find polling stations and hire personnel. Its campaign to educate people about how and where to register is just getting off the ground. And with only five designated election centres, thousands of Iraqis will have to travel hundreds of miles to reach a polling station.

### Iraq New Terror Breeding Ground

*Washington Post – 14 January 2005*

Iraq has replaced Afghanistan as the training ground for the next generation of "professionalized" terrorists, according to a report released yesterday by the National Intelligence Council, the CIA director's think tank. Iraq provides terrorists with "a training ground, a recruitment ground, the opportunity for enhancing technical skills," said David B. Low, the national intelligence officer for transnational threats. "There is even, under the best scenario, over time, the likelihood that some of the jihadists who are not killed there will, in a sense, go home, wherever home is, and will therefore disperse to various other countries." Low's comments came during a rare briefing by the council on its new report on long-term global trends. It took a year to produce and includes the analysis of 1,000 U.S. and foreign experts. Within the 119-page report is an evaluation of Iraq's new role as a breeding ground for Islamic terrorists. President Bush has frequently described the Iraq war as an integral part of U.S. efforts to combat terrorism. But the council's report suggests the conflict has also helped terrorists by creating a haven for them in the chaos of war.

## **COUNTER-TERRORISM**

### Terror group Al Qaeda losing support of more Muslims: Analysts

*Channel News Asia – 3 January 2005*

Analysts have said that Al Qaeda is losing the support of the Muslims. They say Muslims in Southeast Asia are rejecting the approach of the radical group which has also failed to win widespread backing in the Middle East. However, it remains to be seen if events in Iraq will later determine if people in the Middle East will join the side of the radicals. In the past few years many parts of Asia, Europe and North America have experienced militancy in the name of Islam. But extremist attacks, the high-casualty bombings unsupported by a clear political movement, seem unattractive to majority civic-minded Muslims in Southeast Asia. Al Qaeda recognizes this failure as shown in the latest videotape where Osama Bin Laden *undertook to portray a different image from his previous appearances,*

### Inaugural Security Draws on Latest Technologies

*Washington Post – 10 January 2005*

The nerve center for the most heavily guarded presidential inauguration in history will not be in Washington, where President Bush will take the oath of office, but 25 miles away in a futuristic command post in Northern Virginia. Inside a gleaming steel-and-marble complex, the Secret Service and 50 federal, state and local agencies will monitor action in the sky, on the ground and in the subway system. Giant plasma screens will beam in live video from helicopters and

cameras at the U.S. Capitol, along the parade route and at other potential trouble spots. Officials will be able to track fighter jets patrolling the skies, call up three-dimensional maps of downtown, even project the plume of any chemical release.

### [Israel Navy deploys Spider detection system](#)

*Jane's Defence Weekly – 12 January 2005*

The Israel Navy has begun acceptance into service of Controp Precision Technologies' Spider stabilized automatic intruder detection and recognition system. The Spider systems are being deployed on navy vessels along Israel's northern maritime border to counter potential terrorist infiltrations from Lebanon. The Spider has been in service with Israel Air Force (IAF) units for several years. The system is deployed adjacent to the Machbet combined M163 20mm Vulcan cannon/Stinger fire-and-forget missile self-propelled short-range air defense system for detecting aerial intruders. "With minor software changes we have adapted the Spider for our coastguard missions, using its capabilities to detect even the smallest objects," a navy source mentioned.

## **DEFENCE ORGANISATION**

### [UK Future Army Structure creates 'Ranger' battalion](#)

*Jane's Defence Weekly – 22 December 2004*

British Army chiefs have managed to save an infantry battalion being cut from the service by rerolling it as a 'Ranger'-type or special forces support role battalion. The new plan emerged on 16 December as part of a package of measures to implement the Future Army Structure (FAS) aims to redistribute some 10,000 personnel from infantry, armour and artillery units into low-density/high-demand specialist roles. Some 400 mid-level officers and non-commissioned officers will be made redundant under the new restructure. No extra funding has been made available by the Treasury for the plan.

## **DEFENCE TECHNOLOGY**

### [Data Mining: An Overview](#)

*CRS Report for Congress – 16 December 2004*

Data mining is emerging as one of the key features of many homeland security initiatives. Often used as a means for detecting fraud, assessing risk, and product retailing, data mining involved the use of data analysis tools to discover previously unknown, valid patterns and relationships in large data sets. In the context of homeland security, data mining is often viewed as a potential means to identify terrorist activities, such as money transfers and communications, and to

identify and track individual terrorists themselves, such as through travel and immigration records.

While data mining represents a significant advance in the type of analytical tools currently available, there are limitations to its capability. One limitation is that although data mining can help reveal patterns and relationships, it does not tell the user the value of significance of these patterns. These types of determination must be made by the user. A second limitation is that while data mining can identify connections between behaviours and/or variables, it does not necessarily identify a causal relationship. To be successful, data mining still requires skilled technical and analytical specialists who can structure the analysis and interpret the output that is created.

### [You, Robot](#)

*Scientific American – January 2005*

When word got around that Hans Moravec had founded an honest-to-goodness robotics firm, more than a few eyebrows were raised. Wasn't this the same Carnegie Mellon University scientist who had predicted that we would someday routinely download our minds into robots? And that exponential advances in computing power would cause the human race to invent itself out of a job as robots supplanted us as the planet's most adept and adaptive species? Somehow, creating a company seemed ... uncharacteristically pragmatic. But Moravec doesn't see it that way. He says he didn't start Seegrid Corporation because he was backing off his predictions. He founded the company because he was planning to help fulfill them. "It was time," he says, slowly rubbing his hand across his bristle-short hair. "The computing power is here."

### [Satellite Images Boosting Asian Tsunami Aid Efforts](#)

*Space Daily – 4 January 2005*

Satellites are playing a key role in helping rescue and reconstruction efforts in the Indian Ocean, beaming down images from space of areas worst-affected by the earthquake and tidal waves. "What the logistical teams want are the most up-to-date maps possible of the area, to be able to work on the ground, protect people and try to find free areas to set up makeshift camps as well as to know which roads can be used and which ones are blocked," said Eliane Cubero of France's national space study centre, the CNES.

## **MILITARY OPERATIONS**

[Western militaries confront child soldiers threat](#)

*Jane's Intelligence Review – 01 January 2005*

Changing demographics and patterns of conflict, and the availability of light, easy to operate small-arms have allowed children to play an increasingly active role in combat. *P W Singer* investigates the trends that have contributed to the rise of the practice and the nature of the threat children pose on the battlefield. The appearance of children on the modern battlefield is due to a number of converging trends. By using recruiting and indoctrination techniques that take advantage of children's gullibility and immaturity, otherwise unpopular armies and rebel groups have been able to field far greater forces than they would otherwise, through strategies of abduction or indoctrination.

[Special Operations Forces \(SOF\) and CIA Paramilitary Operations: Issues for Congress](#)

*CRS Report for Congress – 4 January 2005*

The U.S. strategy in pursuing the war on international terrorism involves a variety of missions conducted by military and civilian intelligence personnel characterized as "special operations" or paramilitary operations. The separate roles for the Department of Defense (DOD) and the Central Intelligence Agency (CIA) are not always clearly reflected in media accounts and at times there has been considerable operational overlap. Proposals such as those made by the 9/11 Commission to change organizations relationships will, however, be evaluated on the basis of separate roles and missions, operating practices, and relevant statutory bodies.

## **REGIONAL DEVELOPMENTS**

[Danger Of Nuclear War Mounting On Korean Peninsula](#)

*Space Daily – 01 January 2005*

North Korea claimed that the risk of a nuclear war was mounting on the Korean peninsula as the United States attempts to "stifle" it by force. It urged Washington to drop its "hostile" policy toward the communist state and demanded solidarity among all Koreans in order to drive out US troops stationed in South Korea, calling them the "very source of a nuclear war."

[North Korea unveils new war plan focusing on defense](#)

*Space War – 5 January 2005*

Stalinist North Korea has set up a new war plan focusing on defence from US attacks and highlighting underground protection facilities. The plan urges the Stalinist state to be able to fully mobilize within 24 hours of war breaking out. The newspaper said North Korea, which is locked in a standoff with the United States over its nuclear weapons drive, may have mapped out the new plan because of the US-led war in Iraq. The South Korean daily said the plan put high priority on "a defence strategy" rather than the previous offence-oriented war scenario. The plan was worked out by the National Defense Commission, led by strongman Kim Jong-Il, and urges North Koreans to conduct a three-phase war -- defence, offence and then protracted warfare, it said.

## **WEAPONS PROLIFERATION**

### [The Iran Case: Addressing Why Countries Want Nuclear Weapons](#)

*Arms Control Today – December 2004*

Iran's possible development of nuclear weapons has now come front and center in U.S. foreign policy, as well as in consideration overall of preventing the spread of weapons of mass destruction. It has assumed particular importance because of its potential to reshape the security and politics of an already turbulent and critical region. At the moment, there is a need for a reassessment of nonproliferation—both how to prevent proliferation and what to do if prevention fails. Of course, monitored agreements regarding the point, purpose, and conduct of an Iranian civil nuclear power development program, coupled with intrusive inspections, can have a significant impact. Can this approach be relied on? This is one of the questions now under review and the focus of intense political debate regarding negotiations between the Iranian government and a Western troika of France, Germany, and the United Kingdom. The recent Iranian pause in its enrichment activities allows the West, particularly the United States, the opportunity to explore this possibility before either resorting to military force or merely fretting that Iran is on the path to the destabilizing development of nuclear weapons.

### [The State Of Weapons Proliferation In 2004](#)

*Space Daily – 29 December 2004*

During the 2004 U.S. presidential campaign both President George Bush and his opponent, Senator John Kerry, said nuclear proliferation is the single greatest global threat. The five permanent members of the United Nations Security Council - the United States, Russia, China, Britain and France - all possess nuclear weapons. India, Pakistan and Israel have them as well. Iran and North Korea have been making headlines recently with their efforts to produce them. However, if a terrorist group were to acquire nuclear weapons and attack the

United States, how would the U.S. know where - or against whom - to retaliate? It is one of many vexing questions sure to be debated at the 2005 non-proliferation treaty review - and for years to come.

As to chemical and biological weapons, a new report released in Washington, D.C. in December 2004 analyzes the U.S. response to the threat of bio-terrorism in the wake of the September 11th, 2001 terror attacks. The report says the nation has made progress but still has more work to do. How serious is the worldwide threat of biological and chemical weapons?

In terms of the small arms threat, many regional conflicts across the globe, particularly in Africa, are fought primarily using small arms: weapons that can be carried by one or two people and that are cheap and easy to obtain. Amy Katz takes a closer look at these weapons, which experts say pose a larger threat than the more feared nuclear, chemical and biological "weapons of mass destruction."