



Institute of Defence and Strategic Studies



Future Systems Directorate

# **RÉVOLUTIONNAIRE 3/2005**

*The Foremost Inter-Disciplinary Defence E-Bulletin*

突破 *Revolucionario* *Revolutionary* *Merevolusikan* *Revolutionär* *Kraantikari*

**28 February 2005**

## **Contemporary Conflict**

- Prisoner Uprising In Iraq Exposes New Risk for U.S.
- Kidnappings endanger reconstruction in Iraq

## **Counter-Terrorism**

- Aviators Beware: Too Many Lasers
- Information Sharing for Homeland Security: A Brief Overview

## **Defence Strategy**

- Strategists Learn Non-Violent Warfare Tactics

## **Defence Technology**

- Unmanned 'Little Bird' Could See Combat
- Robotic Warfare Drawing Nearer
- Sensor test success
- Weighty problem for FCS project
- Micro-Unmanned Aerial Vehicles – Micro Wave
- Pentagon Strategists Ponder Value of High-Tech Weapons

## **Military Operations**

- Military Suppression of Enemy Air Defences (SEAD): Assessing Future Needs
- Military Aviation: Issues and Options for Combating Terrorism and Counterinsurgency
- Pentagon Exercises Focus on Space Control

- Shrewd Tactics Underpin Navy Strategy to Defeat Diesel Submarines

### **Weapons Proliferation**

- Proliferation Control Regimes: Background and Status
- Balkan states struggle to reduce illicit weapon ownership

### **Regional Developments**

- Waterways and Strategy: China's Priorities
- Analysis: Scenarios of N. Korea Nuke Drive
- India special: Space programme presses ahead

---

Articles from subscriber only sites are available on request. Révolutionnaire is edited by Joshua Ho, with contributions from Bernard Loo, Manjeet Singh Pardesi and Adrienne Li.

## **CONTEMPORARY CONFLICT**

### [Prisoner Uprising In Iraq Exposes New Risk for U.S.](#)

*Washington Post – 21 February 2005*

A bloody inmate riot in February at the biggest U.S. run detention facility in Iraq has exposed an increasingly hard-core prison population that is confronting U.S. forces with a growing risk of prison violence. U.S. troops that dealt with the clash tell of a chaotic and threatening situation where the extent of the violence surprised them. They also say that nonlethal weapons available to them at the time for crowd control proved largely ineffectual.

### [Kidnappings endanger reconstruction in Iraq](#)

*Jane's Intelligence Review - 1 March 2005*

Data compiled and analysed by Olive Security from sources in Iraq, and provided to JIR, indicates that the kidnapping of foreign civilians in Iraq is being carried out by a combination of insurgent and criminal gangs that have proved resilient in the face of counterinsurgency operations. The kidnapping of foreign civilians in Iraq has confronted national governments with a host of political issues, while at the same time, the abduction and murder of foreign workers has forced some companies and aid organisations to withdraw from Iraq, damaging efforts to reconstruct Iraq's infrastructure and to rebuild its economy. If the reconstruction of Iraq's economy and civil society are not to be undermined in 2005, the kidnapping threat will need to be countered by a significant improvement in local law enforcement and a concerted effort to disrupt both insurgent groups and the criminal kidnap gangs that work with them.

## **COUNTER-TERRORISM**

### [Aviators Beware: Too Many Lasers](#)

*Wired News – 8 January 2005*

The FBI and Department of Homeland Security sent a memo to law enforcement agencies last month saying they had evidence terrorists have explored using lasers as weapons. Federal officials have said there is no evidence the recent cases are part of a terrorist plot, and such incidents are nothing new: a Federal Aviation Administration study said "several hundred" similar cases have been reported since the mid 1990s. Despite their ubiquity, lasers fall under strict government scrutiny. David Banach was charged with using a laser to temporarily blind the pilot and co-pilot of a plane flying near the New Jersey airport. He bought the laser on the internet for \$100. How would airlines and pilots maintain their security when such devices can be easily attained by the general public?

[Information Sharing for Homeland Security: A Brief Overview](#)

*CRS Report for Congress – 10 January 2005*

In the aftermath of the terrorist attacks on the World Trade Centre and the Pentagon, various recommendations and efforts have been made with the intention of improving information sharing among government entities at all levels within the United States, the private sector, and certain foreign governments, with a view to countering terrorists and strengthening homeland security. The National Commission on Terrorist Attacks Upon the United States (9/11 Commission) was among those to have most recently offered recommendations in this regard in its July 22, 2004 report. The types of information potential<sup>4</sup>y within the scope of such sharing include raw dat, which has undergone little or not assessment regarding its accuracy or implications; knowledge, which has been determined to have a high degree of reliability or validity; and intelligence, which has been carefully evaluated concerning its accuracy and significance, and may sometimes be credited in terms of its source. The report reviews some of the principla existing homeland security infromation sharing arrangements, as well as some projected arrangements in this regard, and discusses related policy, evaluations, and proposed legislation.

**DEFENCE STRATEGY**

[Strategists Learn Non-Violent Warfare Tactics](#)

*National Defense – February 2005*

A pro-democracy group has sponsored a free video game designed to teach political activists how to plan and execute strategic non-violent warfare. Strategic non-violent warfare sounds like an oxymoron, but its practitioners say it is the most effective way to force regime change.

**DEFENCE TECHNOLOGY**

[Unmanned 'Little Bird' Could See Combat](#)

*National Defense – January 2005*

The Army is eyeing a modified MD 530F Little Bird helicopter that can be flown by remote control. The unmanned aerial vehicle would be used to re-supply combat troops and as a weapons platform.

### Robotic Warfare Drawing Nearer

*The Washington Times - 10 February 2005*

Pushed in part by the war in Iraq, the Pentagon is getting more serious about the deployment of remotely controlled semiautonomous and autonomous weapons. The development programs are scattered. The Defense Advanced Research Projects Agency is investing heavily. Boeing with its X-45, Northrop with its X-47 unmanned planes are heavily involved, and the Advanced Physics Laboratory at Johns Hopkins University is working on control systems. Other programs work at improving the wheeled robots used by bomb squads in the United States and troops in Iraq to disarm bombs. The Predator, a remotely piloted craft, has been firing missiles at ground targets in Afghanistan and elsewhere.

### Sensor test success

*IDEX News – 15 February 2005*

Textron Systems has successfully dropped its Advanced Remote Ground Unattended Sensor/Advanced Air Delivered Sensor (ARGUS/AADS) from a UH-1N helicopter. The system has been developed to facilitate the deployment of sensors into hostile, denied or deep areas. During the test, the system survived impact and communicated data via satellite to an operator interface.

### Weighty problem for FCS project

*Jane's Defence Weekly - 23 February 2005*

The most recent concepts for the US Army's Future Combat Systems (FCS) vehicles will be too heavy to meet US Army deployability requirements, probably forcing some uncomfortable compromises. The measure for FCS deployability is whether it can be transported in a C-130 medium transport aircraft. However, some of the vehicles could weigh up to 22,000 kg combat-ready, which is significantly more than the C-130 can carry, said General Kevin Byrnes, commander of the army's Training and Doctrine Command (TRADOC). That would require the vehicles to be transported stripped down, with fuel, ammunition and armour transported separately and assembled in the field - a four to six-hour process.

### Micro-Unmanned Aerial Vehicles – Micro Wave

*Jane's Defence Weekly – 23 February 2005*

UAVs are now an accepted part of the battlefield. The rise of network-centric warfare in the US, or variants of the concept worldwide, has partially fuelled the ascent of UAVs across the spectrum. The use of UAVs to provide targeting and battle damage assessment as an integral part of a network is an achievable goal but the bandwidth constraint is still a challenge.

Mini-UAVs, weighing more than 1 kg and transportable by a single person have been part of the battlefield for almost two decades. There remains substantial

potential for mini-UAVs, as demonstrated by Israel's Elbit Systems. US companies and research laboratories have developed or are working on mini-UAVs including the Military Technologies Buster. One drone development that remains in the future war scenario, at least in practical terms or to full potential, is micro-UAVs.

### [Pentagon Strategists Ponder Value of High-Tech Weapons](#)

*National Defense – March 2005*

The Pentagon's sweeping review of strategy and programs is expected to bolster investments in sensors, networks, information technology and precision-guided munitions. From the Pentagon's perspective, the 2005 QDR has great potential to change the military's approach to everything from strategy to technology.

## **MILITARY OPERATIONS**

### [Military Suppression of Enemy Air Defences \(SEAD\): Assessing Future Needs](#)

*CRS Report for Congress – 24 January 2005*

Suppressing enemy air defences has been a central element of projecting military air power for over 50 years. However, several developments suggest that this mission is of growing importance to the Department of Defense (DOD). Some analysts say that the emergence of new technologies and air defences will increasingly challenge U.S. SEAD efforts. Making budgetary judgements on SEAD programs and processes required the assessment of complex factors.

### [Military Aviation: Issues and Options for Combating Terrorism and Counterinsurgency](#)

*CRS Report for Congress – 24 January 2005*

Many of the weapons and methods employed today by U.S. armed forces can be used against non-state actors. Some, however, are more directly applicable than others. U.S. experience in conducting close air support (CAS), employing special operations forces (SOF) and advising friendly governments in using aviation to defend themselves from insurgents and terrorists may form a basis for building capabilities against non-state actors.

### [Pentagon Exercises Focus on Space Control](#)

*C4ISR – 10 February 2005*

The U.S. Defense Department has launched a series of exercises designed to sharpen its understanding and management of counter-satellite operations. Space control is military jargon for the ability to ensure one's own access to

satellite capabilities while denying space-based services to adversaries. It encompasses both defensive measures designed to protect satellites as well as what the Pentagon refers to as negation -- measures to counter or destroy enemy satellite capabilities.

[Shrewd Tactics Underpin Navy Strategy to Defeat Diesel Submarines](#)

*National Defense – March 2005*

In preparation for future wars, U.S. ship commanders will be trained to employ unconventional tactics against enemies equipped with diesel submarines. A new “concept of operations,” approved in late December by Chief of Naval Operations Adm. Vernon Clark, makes a drastic departure from the traditional ways of conducting antisubmarine warfare.

## **WEAPONS PROLIFERATION**

[Proliferation Control Regimes: Background and Status](#)

*CRS Report for Congress - 10 February 2005*

Weapons of mass destruction (WMD), especially in the hands of radical states and terrorists, represent a major threat to U.S. national security interests. Multilateral regimes were established to restrict trade in these goods and technologies and to monitor their civil applications. The nuclear non-proliferation regime encompasses several treaties, extensive multilateral and bilateral diplomatic agreements, multilateral organisations and domestic agencies, and the domestic laws of participating countries. While the regime enjoys almost universal international agreement opposing the further spread of nuclear weapons, several challenges to it have arisen in recent years.

[Balkan states struggle to reduce illicit weapon ownership](#)

*Jane's Intelligence Review – 1 March 2005*

A combination of weak state controls, unresolved border issues and organised criminal and insurgent activity means that the Balkan states remain a significant source and transit region for small-arms and light weapons (SALW). This is despite disarmament and collection efforts. The availability of such weaponry in the Balkans demonstrates a diverse range of potential threats, including the proliferation of man-portable air defence systems (MANPADS) to insurgent and terrorist groups; the supply of small-arms to organised crime and insurgent groups in Europe and elsewhere; and the supply of weaponry to insurgents in Balkan states such as Macedonia.

## REGIONAL DEVELOPMENTS

### [Waterways and Strategy: China's Priorities](#)

*The Jamestown Foundation's China Brief, Volume V, Issue 4 – 15 February 2005*

Beijing continues to regard the maritime arena as crucial to the nation's defence, economy, and political well-being, and as an important factor in societal stability and regime survival. New organisations have been tasked with the management of maritime safety and resources, especially fisheries conservation. During the past decade, China has also reorganised to improve the function of coast guard-type functions. In addition, Chinese maritime strategists continue to employ the navy as an important strategic instrument to ensure full advantage of ocean resources. Beijing's maritime strategy is designed to achieve near-term national security objectives and longer-term regional maritime dominance through both combatant and merchant fleets. In the near term, China is building a navy capable of decisively influencing the operational aspects of the Taiwan and South China Sea situations, should diplomacy and other instruments of statecraft fail. There is no reason to expect that Beijing will in the future be any less restrained about employing naval force, especially but not exclusively when it thinks such use of force will successfully obtain the objective at hand.

### [Analysis: Scenarios of N. Korea Nuke Drive](#)

*Space War - 18 February 2005*

Most officials and analysts here are playing down the North's boast of nuclear weapons, saying this is a brinkmanship tactic aimed at gaining leverage over the United States in future dialogue. But some experts say North Korea could further raise the stakes in the 28-month-long nuclear standoff with the United States and caution against optimistic views on the North's nuclear ambitions. North Korea stunned the world last week by declaring it has manufactured nuclear weapons and was pulling indefinitely out of the six-nation talks on its nuclear programs. The Stalinist nation further ratcheted up its nuclear threat this week, pledging to use nuclear bombs to counter any U.S. nuclear strike. South Korean government officials, who are desperately seeking a diplomatic resolution of the nuclear dispute, also agree on the opinion that the North's nuclear brinkmanship could determine the fate of the communist regime. They say the multilateral talks on North Korea's nuclear weapons programs could resume sooner or later unless North Korea takes further steps toward weapons of mass destruction.

### [India special: Space programme presses ahead](#)

*NewScientist.com - 19 February 2005*

Why is India, a country that still has so many development problems on the ground, aiming for the heavens? To Indian scientists, the question is not only patronising of their scientific aspirations, it betrays an ignorance of the Indian space programme's greater purpose and successes against the odds. India's

political leaders say the country cannot afford not to have a space programme. Indira Gandhi, who was India's longest-serving prime minister, believed it was not only important for science, but also vital to India's development. When India first detonated a nuclear device in 1974, the US and European nations imposed widespread sanctions to restrict India's access to technologies that could be used to make a nuclear missile. This hobbled the country's rocket development programme and forced the Indian Space Research Organisation (ISRO) to reinvent technologies it could no longer buy. In the long run this has given India an advantage over other countries with aspirations to reach space. Its space programme is already largely self-sufficient and aims to soon be completely independent of foreign support.