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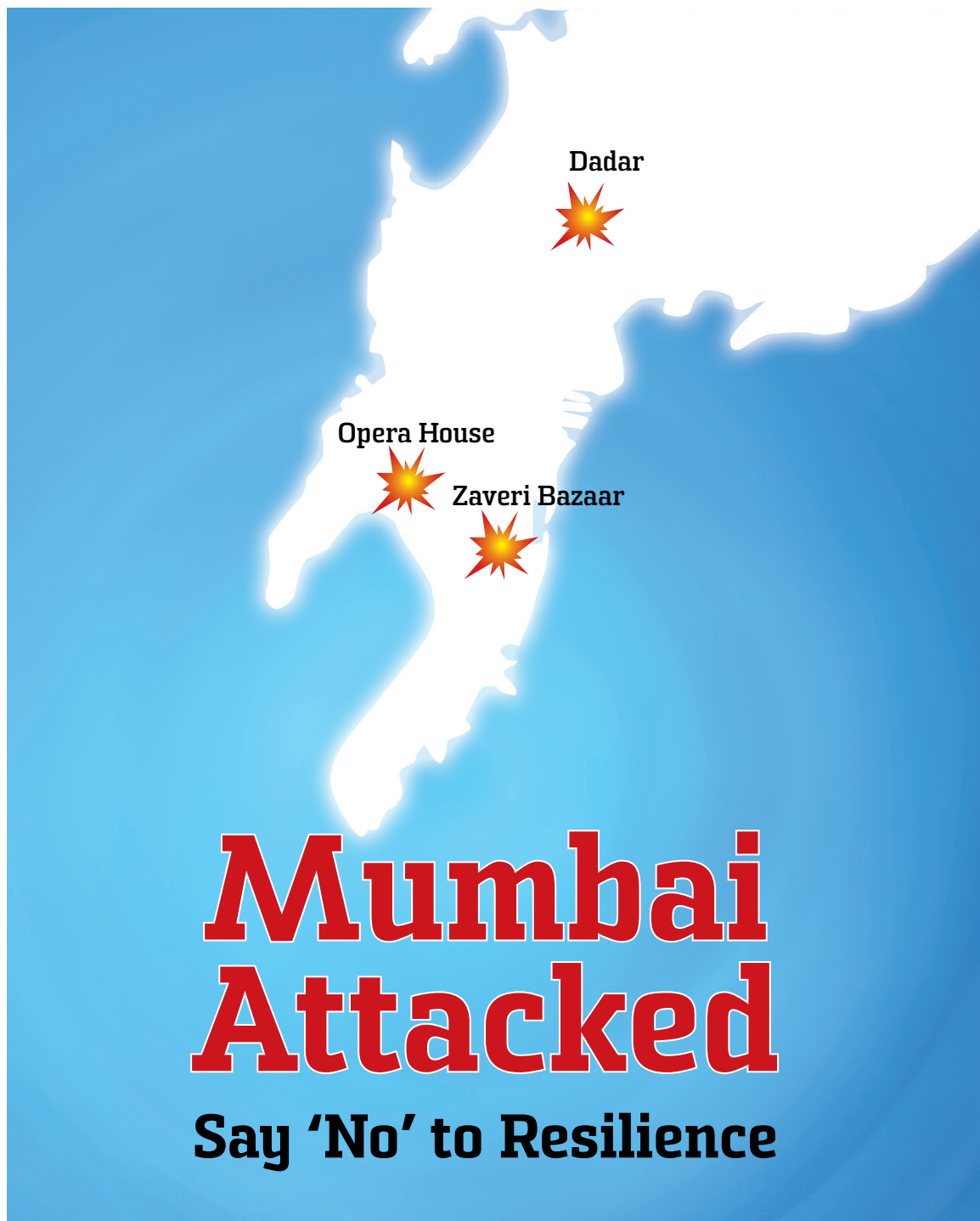
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Cover:

In July 13, Mumbai suffered yet another terror attack as three bomb blasts hit Zaveri Bazaar, Opera House and Dadar within minutes of each other, leaving 18 dead and 131 injured.

Cover illustration: Anoop Kamath

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Zero-tolerance against terrorism

What is happening? At regular intervals, terrorists of various hues, from across the border or home-grown, have been striking with disastrous effects. Mumbai has been a target once again on July 13, even while the powers that be have been 'dragging their feet' in eliminating Ajmal Qasab, the lone terrorist who was caught alive from the 26/11 carnage. Crores of rupees are spent on him to keep him in jail when all that the government had to do was eliminate him in public, sending a strong signal to each and everyone that India is not going to tolerate any kind of terrorist activities on its soil. But no, we are a nation of 'large-hearted' people, we are a nation of 'forgiving' people, we are a nation soon to 'forget' the acts of terrorism, we are a 'resilient' nation.....

But what good is this resilience, if we are not able to pressure the government into putting security infrastructure in place to prevent any kind of attack. There cannot be a better example than the US. After 9/11 devastated the country, the first thing the government did was further tighten homeland security, in its bid to secure its citizens. The US went after Osama bin Laden, though success was delayed. While we acknowledge that the Indian government has initiated several measures, the gaps continue to be enormous. That there was no 'intelligence input' on the Mumbai terrorist strikes is 'unfortunate'.

Let me give you a simple example. Recently, I had been to Mumbai and was amazed to see the laxity in security around Gateway of India. The steamers which ferry people to Elephanta Caves and back offers incredible level of open invitation to any kind of hostile activity. There is no security of any kind, zero-level of scheduling and anyone can board the age-old steamers from any side. Compared to this, the 30-minute basic cruise in Singapore can be done only after one has gone through severe security checks, including scanning of fingers.

What is preventing us from deploying the best of technologies and security systems on a pan-India basis? Certainly not

money, if we go by the reports of humongous scams that are surfacing every other day.

There has to be a political will to safeguard the citizens of the country. Not just announcements and some token efforts. That the Maharashtra police have 'neutralised' many terrorist attempts, according to the Home Minister, P. Chidambaram, deserves all the praise, but the need to invest heavily both in human intelligence and security technologies cannot be underestimated. Security has to get the highest priority. Security has to be 100 per cent and not 99 per cent.

The Mumbai attacks are reminders of India's vulnerability to terrorist forays.

We at *SP's M.A.I.* express our sincere condolences to the affected families in 13/7 terrorist attack. But we are not going to stop at that, *SP's M.A.I.* will continue to provide inputs on policies, technologies and other information that could add to the efforts of institutions, companies, government and others interested in securing the nation from threats of any kind. **SP**

Jayant Baranwal
Publisher and Editor-in-Chief



India and Kyrgyzstan to expand defence ties

India has offered its assistance to Kyrgyzstan in a wide range of areas to strengthen its defence and security capabilities. The Defence Minister A.K. Antony made this offer at the extensive talks he held with his Kyrgyz counterpart Major General Abibilla Kudayberdiev in Bishkek on July 4. The talks took place between the delegations of the two countries immediately after the arrival of Antony in the Kyrgyz capital.

As a first step, India will be sending a team to train Kyrgyz Armed Forces in UN Peacekeeping Operations and impart English language skills. During the talks, Antony said though the present level of defence engagements are rather limited, there is potential to mutually enhance the scope and scale of activities in a gradual manner in areas of mutual interest particularly in the field of military training, defence research and development and production of defence armaments.

Antony was leading a high level defence delegation including the DRDO Chief Dr V.K. Saraswat, Special Secretary R.K. Mathur, Secretary Defence Finance Vijay Lakshmi Gupta and Chief Controller of Research and Development Dr William Selvamurthy. The Indian Ambassador to Bishkek, P. Stobdan also joined the deliberations.

Antony said India has a wide network of research establish-



Defence Minister A. K. Antony with his Kyrgyz counterpart, Abibilla Kudaiherdiev, at a banquet hosted in his honour, in Bishkek, Kyrgyzstan

ments not only in armaments but also in physiology, medicine, animal husbandry, nutrition etc under defence establishments. He offered New Delhi's assistance to Bishkek for undertaking joint research and production in non-military sectors also.

Appreciating the support of the Kyrgyz authorities in international efforts against terrorism and drug trafficking in Kyrgyzstan, he said the joint working groups on counter- terrorism should meet regularly to share information on the issue. **SP**

ATK to develop next-gen ammunition for Abrams MBT

ATK has received a \$77 million, three-year contract to develop and qualify the M829E4 120mm advanced kinetic energy (AKE) tactical tank round for the US Army. At the completion of this contract, ATK will have completed the second phase of the engineering manufacture design (EMD) work required to qualify for the new round for use with the Army's M1A2 SEP Abrams main battle tank. Upon qualification, the round will enter full-rate production.

"During our 30 years of programme experience partnering with the Army, we have type classified 10 of the 12 120mm tactical and training rounds for the Abrams tank. This experience makes ATK uniquely qualified to develop this next generation capability for the Army," said Bruce DeWitt, Vice President and General Manager for ATK Advanced Weapons Division. "ATK provided the 120mm ammunition that helped 'upgun' the Abrams from a 105mm to a 120mm main gun and we look forward to working with the Army to maintain the Abrams' standing as the world's dominant tank."

The M829E4 is the Army's fifth generation, 120mm kinetic energy cartridge. The round is being developed to provide the



Abrams M1A2 SEP (system enhancement package) with heavy armour defeat capabilities that allow the tank crew to engage and destroy threat main battle tanks protected with advanced, explosive reactive armour at extended ranges as well as in military operations in urban terrain (MOUT), mountain, and non-traditional battlefields. The round will allow for the use of fewer rounds and allow for faster enemy engagements—factors that will ultimately increase crew and platform survivability. **SP**

Shekhar Agarwal takes charge as secretary defence production

Shekhar Agarwal has assumed charge as Secretary, Department of Defence Production. He belongs to the 1977 batch of the Indian Administrative Service.

He has a vast experience of working in Home, Finance and Personnel Administration and has worked in all core areas of the government both at the Centre as well as in some States. He was Special Secretary working in the Ministry of Defence for the last three and half years before assuming this new appointment. He is also a gold medalist from St. Stephen's College, Delhi University. **SP**





Cobham gets Javelin missile cooling components contract

Cobham Life Support has received a follow-on contract for \$9.5 million from Lockheed Martin in support of the Javelin missile programme. Cobham provides cooling system components for the missile and launcher, as well as electrical assemblies. Deliveries on the contract begin immediately, with work performed in St. Petersburg, Florida, and running through December 2012.

Javelin is a portable, shoulder-fired anti-tank missile used by dismounted infantry to defeat current and future-threat armoured combat vehicles. The contract will support both US and various foreign military sales (FMS) requirements for the missile system. Javelin was developed and produced for the US Army and Marine Corps by the Javelin joint venture between Lockheed Martin and Raytheon.

"Cobham has supported this programme for 19 years, and is a member of the strategic performance management team with Lockheed Martin," said Kelly Coffield, President of Cobham Life Support. **SP**

Russia to spend \$730bn on weapons

Russia will be going in for massive weaponisation programme and by 2020 would have spent \$730 billion on new weapons.

This was announced in the Russian Parliament by the Prime Minister Vladimir Putin as to fend off any threats from any part of the world. In line with this approach, missile production is expected to double from 2013.

The modernisation programme includes acquisition of eight missile-carrying strategic submarines equipped with Bulava ballistic missiles, besides 600 aircraft and S-400 and S-500 air defence systems. **SP**

Harris to deliver multiband manpack radio systems

Harris Corporation has received orders totalling \$12.2 million to supply additional Falcon III AN/PRC-117G multiband manpack radios systems to the US Department of Defense.

Software-defined and upgradeable, the AN/PRC-117G radio system delivers critical real-time information to warfighters on the move and their commanders via a man-portable radio system with significantly reduced size and weight.

"The Falcon III AN/PRC-117G addresses the full range of wideband tactical networking capabilities today, including video, network-wide e-mail and chat and biometrics," said Brendan O'Connell, President, Department of Defense Business, Harris RF Communications. "The AN/PRC-117G radio provides warfighters with unprecedented situational awareness and command and control of the battlefield." **SP**

GD Canada and DRDC Atlantic complete torpedo-defence demonstration

General Dynamics Canada has completed its largest and most successful technology demonstration programme (TDP) with Defence Research and Development Canada Atlantic (DRDC Atlantic), demonstrating a torpedo-defence enhancement that will increase the level of protection for Canadian Navy ships.

The multi-sensor torpedo detection classification and localisation (MSTDCL) technology demonstration programme was initiated in 2006 by DRDC Atlantic to develop and demonstrate advanced concepts in multi-sensor automated torpedo warning for the Halifax-class patrol frigates. The potential lethality of even a single torpedo hit underpins the need for this type of detection capability. As the prime contractor, General Dynamics Canada supported DRDC Atlantic by providing analysis, design, development, installation and support, culminating in the development of a prototype underwater warfare system called Pleiades.

Over the course of the five-year TDP, the Pleiades system was used in realistic operational trials on several Halifax-class patrol frigates to respond to more than 100 live, unscripted torpedo firings. "The Pleiades system has demonstrated that with modern hardware and software architecture, we can provide processing and displays that make it possible for the sonar operator to detect and classify real torpedoes at useful operational ranges. Even without any change to the underwater sensors, Pleiades greatly outperformed the combined capabilities of existing Halifax-class sonars," said Dr. Mark Trevorrow of DRDC Atlantic.

General Dynamics Canada is the original manufacturer of the highly-reliable anti-submarine sonar systems currently in use on the patrol frigates, and was selected through a competitive process for the project.

"Our longstanding relationship with DRDC Atlantic, a globally renowned defence research centre with world-leading expertise in anti-submarine warfare and mine and torpedo defence systems, has strengthened General Dynamics Canada's inherent underwater intelligence surveillance and reconnaissance pedigree and expertise," said Brian Fava, Vice President of air and naval systems for General Dynamics Canada. **SP**



Government clears Mirage-2000 upgrade

The Cabinet Committee on Security (CCS) has cleared the about \$2.4-billion Mirage-2000 upgrade proposal of French defence majors Dassault, Thales and MBDA. The Committee chaired by the Prime Minister Manmohan Singh gave assent to the deal as it had been held up due to costs.

The Mirage upgrade programme will include advanced navigational systems, multi-mode multi-layered radar, identification friend or foe system, fully integrated electronic war-

fare suite and advanced beyond visual range (BVR) capabilities, among others.

The IAF is awaiting retro-fit of 51 Mirage fleet for quite sometime now and there was expected enthusiasm that it would be cleared during the French President Nicolas Sarkozy's India visit last year. The upgrade of the entire fleet is expected to take about nine years, with the first four Mirages being retro-fitted in France and the rest 49 would be done along with state-owned defence undertaking Hindustan Aeronautics Limited.

What the deal implies

CCS clears 2.4 billion dollar deal with France for the upgrade of 51 Mirage 2000 H fighter aircraft of the IAF, which were inducted into the IAF in the mid-1980s.

- The deal includes the purchase of 450 Mica missiles
- This will be the biggest arms deal with France after the signing of the Scorpene submarine deal in 2005
- The deal involves the upgrade of four IAF Mirage aircraft to the Mirage 2000-V standard in France as prototypes. The remaining 47 will be upgraded in India at HAL, Bangalore
- The contract will be signed soon
- The deal binds the French company Dassault to sign counter-trade deals with Indian companies worth 30 per cent of the value of the Mirage deal
- The upgrade bill per Mirage jet will be upwards of \$40 million. Critics said this is close to the price of a new aircraft
- The upgrade only involves avionics, radar and weapon systems. The engine and airframe will stay the same. **SP**

—Inputs by Vishal Thapar

Lockheed Martin delivers first F-35 production jet for training to Eglin AFB

The first Lockheed Martin production model F-35 Lightning II to be assigned to the 33rd Fighter Wing has arrived at Eglin AFB. The aircraft, known as AF-9, will be used for activities in concert with training F-35 pilots and maintainers who begin coursework at the base's new F-35 Integrated Training Center this fall.

AF-9 is a conventional takeoff and landing (CTOL) version of the 5th generation stealth fighter. Overall, the jet is the third production-model F-35 delivered to the US Air Force, with the first two assigned to Edwards AFB, California.

"We're incredibly proud of our government/industry team whose steadfast dedication to this programme led to the successful delivery of AF-9 today," said Larry Lawson, Lockheed Martin Executive Vice President and F-35 programme General Manager. "The exceptional capabilities of this 5th generation fighter are now in the very capable hands of the men and women



of the 33rd Fighter Wing who are ushering in a new era of F-35 training. We look forward to delivering our full complement of F-35s to the Emerald Coast in the months and years ahead."

The F-35A CTOL variant – designed to meet US Air Force requirements – is also the primary export version of the Lightning II. The air forces of Italy, the Netherlands, Turkey, Canada, Australia, Denmark, Norway and Israel will employ the F-35A. To date, the F-35 programme has accomplished more than 925 flights since late 2006. **SP**

Northrop Grumman to provide navigation equipment for MAFI

Northrop Grumman Corporation's Europe-based air traffic management subsidiary, Northrop Grumman Park Air Systems is providing a range of navigation equipment including instrument landing systems (ILS) and Doppler VHF omni-directional range systems (DVOR) for air bases in India as part of the Indian air force's modernisation of air field infrastructure (MAFI) project.

Under the contract awarded by The Tata Power Company Limited, Strategic Electronics Division (Tata Power SED), Northrop Grumman will supply 30 NORMARC 7000 ILS and 31 NORMARC DVOR systems with deliveries to be completed in 42 months. This is the first phase of the MAFI India project. The current contract provides an option for a second phase of



the programme for modernising a further 30 airfields operated by the Indian armed forces.

"The MAFI-I contract, won against a global tender of the defence ministry, is a watershed moment, not only for us, but also for increasing private sector participation in the Indian defence sector," said Tata Power SED Chief Executive Officer Rahul Chaudhry.

The project is being implemented by the Indian Air Force to ensure its air fields are capable of handling all types of aircraft operated by the air force at all times, including modern jet fighters and military transport aircraft currently being acquired. When completed, the project will provide the airfields with modern air traffic management, navigation and landing systems, and meteorological and communications facilities. **SP**

Alenia Aeronautica to maintain NATO's E-3A AWACS fleet

Alenia Aeronautica, a Finmeccanica company, has recently renewed the contract with International Aerospace Management Company (IAMCO), for the supply of a wide range of maintenance and upgrade services for NATO's AWACS (airborne warning and control system) aircraft fleet.

The contract signed by Alenia Aeronautica will generate estimated total sales of about €100 million. A remarkable business target has been recently achieved by Alenia Aeronautica that, through the signature of the contract with IAMCO, during the forthcoming decade will perform scheduled depot level maintenance (DLM) and unscheduled out-of-cycle (OOC) inspections, in support of 17 E-3A (B 707) AWACS aircraft, based in Geilenkirchen (D) and often deployed to survey international crisis situations all over the world.

Giuseppe Giordo, Alenia Aeronautica's CEO, said: "Alenia Aeronautica is particularly proud to be confirmed in the role of providing NATO with its own maintenance and upgrade services in support of the E-3A AWACS fleet."

Such agreement awards an enduring tradition of quality and reliability that Alenia Aeronautica has been constantly ensuring on this demanding programme during the last 20 years. **SP**



UK orders 62 AW159

AgustaWestland, a Finmeccanica company, showcased its first production AW159 helicopter at the Paris Air Show recently. The UK has ordered 62 AW159s for the Army and Royal Navy to fulfil both over land and maritime missions with a common platform.

The AW159, whilst building on the pedigree of the current Lynx, is a new 6-tonne multi-role military helicopter featuring a new marinised airframe, all new avionics, new mission sensors and new generation weapon systems. The AW159 programme has achieved several major milestones so far in 2011 and continues on time and on budget ready to deliver the first aircraft to the UK Ministry of Defence at the end of 2011. The first production aircraft performed its maiden flight on April 20, 2011 at AgustaWestland's Yeovil facility and a further six production aircraft are now undergoing final assembly on a new state-of-the-art assembly line. **SP**



WAC commanders focus on mission accomplishment

The Commanders' Conference of Western Air Command (WAC) was inaugurated by Air Chief Marshal PV. Naik. The conference, which began with an underlying theme – "Mission Accomplishment with Integrity and Excellence" – was attended by Commanders of all formations under Western Air Command and the Principal Staff Officers of the Command.

Air Marshal D.C. Kumaria, Air Officer Commanding-in-Chief, Western Air Command said, "As a part of the ongoing modernisation process, Western Air Command has taken rapid strides in operationalisation of C-130J Super Hercules aircraft, as well as induction of critical components essential for network-centric warfare. There is a need to rapidly absorb new inductions over the next few years, as Western Air Command transforms into a much more potent fighting force."

"Increasing synergy with affiliated Army Commands has been an area of enhanced focus for WAC. Recent joint exercises between Army and Air Force have highlighted this fact by bringing out the immense contribution of air power and the resultant synergy in airland operations between the two services."

On the recently conducted exercise Gauntlet IV, he said, "The high standards achieved during the highly intensive 24x7 exercises were indicative of the imposing combat potential of Western Air Command. All the resources, energies, capabilities and potential must be directed towards mission accomplishment."

The Air Chief released a coffee-table book – *Western Air Command: Dawn of a New Era* – a photo essay on the history of the Command. This visit of the Air Chief to WAC, where he held important operational appointments during his career, was also his farewell visit. **SP**



Boeing EA-18G Growlers complete first combat deployment

Boeing EA-18G Growlers operated by US Navy electronic attack squadron VAQ-132 safely returned to their home base at Naval Air Station Whidbey Island, Washington, on July 9, after completing an eight-month deployment that included combat operations in the US Central Command (CENTCOM) and US Africa Command (AFRICOM) areas of responsibility.

During the deployment, VAQ-132's personnel and aircraft supported CENTCOM operations in Iraq before quickly transitioning to AFRICOM to conduct operations supporting NATO in Libya.



Additional EA-18Gs are deployed with electronic attack squadron VAQ-141 aboard the USS George H.W. Bush (CVN77) aircraft carrier, marking the aircraft's first sea-based deployment. VAQ-141 is expected to conduct support missions as part of Carrier Air Wing Eight in the Mediterranean and Persian Gulf regions.

"Boeing is honored to support the Navy and the service members operating and maintaining the new EA-18G Growler," said Kory Mathews, Boeing F/A-18 and EA-18 Programmes Vice President. "As we join the Navy in celebrating its first 100 years of aviation success, the service continues to achieve milestones that will stand out for decades to come."

The EA-18G is the only air combat platform that delivers full-spectrum airborne electronic attack (AEA) capability along with the targeting and self-defence capabilities derived from the Navy's frontline fighter, the F/A-18E/F Block II Super Hornet. **SP**



Thales unveils industry-first augmented reality on TopOwl

Thales has introduced its high-performance TopOwl helmet mounted sight display (HMSD) featuring augmented reality, a new capability further enhancing helicopter pilots situational awareness in difficult visibility conditions.

Representing an industry-first, TopOwl is now able to provide helicopter crews with augmented reality information, projected right in front of the pilot's eyes, such as synthetic views of the environment, made possible through the use of TopOwl's unique fully overlapped 40-degree field of view. This synthetic view is generated in real time and superimposed on the actual terrain vision, drawing on information from integrated databases, GPS data (for helicopter position and heading) and TopOwl's accurate pilot's line of sight (LoS) measurement.

Projected directly on to the pilot's helmet visor, the 3D Synthetic Vision System imaging (SVS) will give the crew a virtual representation of the world around the helicopter even in adverse weather, brownout or whiteout conditions, where pilots are no longer able to discern the ground from the air due to dust, sandstorms or snow. Detected obstacles can also be displayed in augmented reality, should the helicopter be equipped with an obstacle warning system (OWS). This new function has already been evaluated in flight.

Yves Joannic, Thales Vice President, Helicopter Avionics activities, commented, "Our role is to work constantly towards improving crew safety and mission success. We leverage Thales expertise in head up displays for both passenger and fighter aircraft together with our experience in helmet mounted sight displays for helicopters to provide the market with crew-focused innovations." **SP**

Wipro agreement with Spanish firm

Wipro Infrastructure Engineering (WIE) recently signed an agreement with Spanish firm Compania Espanola De Sistemas Aeronauticos (CESA) for manufacturing of precision engineered components for the aerospace and defence sector. Wipro will make an initial investment of \$15 million. CESA is a subsidiary of the global aerospace and defence corporation, EADS.

Pratik Kumar, President of WIE, said: "The agreement involves transfer of technology as well as manufacturing workload for Aerospace actuators and related precision engineered components from CESA to Wipro.

"Aerospace and defence (A&D) is a huge opportunity area for us to leverage our core competences. We will invest around \$15 million in the initial phase in establishing a greenfield venture for the manufacture of these components in the new SEZ for aerospace being set up at Devanahalli by Karnataka," Kumar said. **SP**



Gripen operational in Thailand

During a ceremony on July 8, 2011 the Royal Thai Air Force (RTAF) officially declared its new air defence system consisting of the Gripen fighter and Saab 340 Erieye AEW operational. The ceremony took place at the Wing 7 base in Surat Thani.

The new era for the RTAF began in 2008, when an agreement was signed between FMV, Sweden's Defence Materiel Administration and the RTAF, for the delivery of six Gripen C/D multi-role fighter aircraft to replace its outgoing F-5 aircraft. The order also included one Saab 340 Erieye AEW, a single Saab 340 for transport purposes and a ground-based command-and-control system. A further batch of six Gripen C fighters and another Saab 340 Erieye AEW was ordered in 2010. Deliveries of the second RTAF order will be completed in 2013.

The training of Thai personnel began in 2009. Four pilots and 20 technicians were trained by the Swedish Armed Forces (SwAF). In 2010 they were back in their home country and were ready to receive the delivery of the first batch of aircraft. The first Saab 340 Erieye AEW and the Saab 340 transport aircraft arrived in December 2010, and the first batch of six Gripen fighters was flown from Sweden to Thailand in February 2011.

Since the deliveries of the first batch of aircraft, a second batch of Thai Gripen pilots and technicians has graduated from their training in Sweden.

Ten technicians have been trained in Sweden for a year and graduated in June 2011. The second part of the training was carried out at F-7 Wing at Sätenäs, Sweden. Then it was all about hands-on training in how aircraft should be handled in the daily service, with preparation and maintenance work. **SP**

Airbus Military and PT Dirgantara Indonesia sign strategic agreement

Airbus Military has concluded a strategic collaboration agreement with PT Dirgantara Indonesia (PTDI) under which it will assist with the revitalisation of the Indonesian national aerospace industry.

The agreement was signed in Jakarta on July 6, in the presence of the Minister of State Owned Enterprises of Indonesia, Mustafa Abubakar, by PT Dirgantara Indonesia (Persero) President Director Budi Santoso, PT Perusahaan Pengelola Aset (Persero) President Director Boyke W., Mukijat, and Airbus Military CEO Domingo Ureña Raso. This agreement confirms the memorandum of understanding of February 2011. In the first phase of the programme, lasting some 18 months, Airbus Military will support PTDI in optimising its overall industrial processes and global efficiency.

The agreement builds on the longstanding manufacturing relationship between Airbus Military and its Spanish predecessor CASA, and PTDI and its Indonesian predecessors going back to Nurtanio. PTDI is currently also an important supplier to Airbus Military on the C212 and CN235 light/medium transport and surveillance aircraft, as well as to Eurocopter and Airbus. **SP**

Sikorsky delivers 300th Black Hawk to US Army

Sikorsky Aircraft announced the delivery of the 300th UH-60M Black Hawk helicopter to the US Army.

"The war-fighter has provided outstanding reviews of the UH-60M Black Hawk helicopter's performance in theater," said Lt Colonel Heyward Wright, Product Manager, representing Colonel Thomas Todd of the US Army's Utility Helicopters Project Office. "In my estimation, the UH-60M aircraft sets the standard for a successful utility platform in a combat environment."

Sikorsky began delivering UH-60M aircraft to



the US Army in 2006. With a new airframe, avionics and propulsion system, the aircraft is the most modern in a series of Black Hawk variants that Sikorsky has been delivering to the Army since 1978. Sikorsky Aircraft also has delivered UH-60M aircraft to other US federal government agencies, and to international customers.

"The UH-60M platform brings the most up-to-date technology to the war-fighter to keep our troops safe for their diverse missions," said John Palumbo, Sikorsky Vice President, Army Programmes. "We continue to receive very positive feedback from the US Army because the UH-60M Black Hawk helicopter provides reduced pilot workload, increased lift, better protection and enhanced survivability. It is a proven, reliable combat aircraft."

Sikorsky is expected to deliver more than 950 UH-60M aircraft to the US Army by 2025. Additionally, the Army plans to buy more than 400 HH-60M Medevac aircraft used to extract wounded troops from the battlefield. **SP**



Drones don't allow hit-and-run

If you use drones you must confirm and report who they killed, says legal team.

International lawyers have identified an existing but previously unacknowledged requirement in law for those who use or authorise the use of drone strikes to record and announce who has been killed and injured in each attack.

A new report, 'Drone Attacks, International Law, and the Recording of Civilian Casualties of Armed Conflict', is published on June 23, 2011, by London-based think tank Oxford Research Group (ORG).

Speaking at the Geneva Centre for Security Policy, Dr Susan Breau, the report's lead author and Professor of International Law at Flinders University, said: "It is high time to implement a global casualty recording mechanism which includes civilians so that finally every casualty of every conflict is identified. The law requires it, and drones provide no exemption from that requirement."

The key findings are:

- There is a legal requirement to identify all casualties that result from any drone use, under any and all circumstances.
- The universal human right which specifies that no-one be "arbitrarily" deprived of his or her life depends upon the identity of the deceased being established, as do reparations or compensation for possible wrongful killing, injury and other offences.
- The responsibility to properly record casualties is a requirement that extends to states who authorise or agree the use of drones, as well as those who launch and control them, but the legal (as well as moral) duty falls most heavily on the latter.
- There is a legal requirement to bury the dead according to the rites of the religion to which they belonged, and this may not be in mass or unmarked graves. The site of burial must be recorded, particularly in the event that further investigation is required.
- A particular characteristic of drone attacks is that efforts to disinter and identify the remains of the deceased may be daunting, as with any high explosive attacks on persons. However, this difficulty in no way absolves parties such as those above from their responsibility to identify all the casualties of drone attacks.
- Another characteristic of drone attacks is that as isolated strikes, rather than part of raging battles, there is no need to

delay until the cessation of hostilities before taking measures to search for, collect and evacuate the dead.

Pakistan, Yemen and beyond

The report also provides a set of specific recommendations addressing the current situation in Pakistan and Yemen, where the issue of drone strikes by the United States and the recording of their casualties is of real and practical urgency. According to the report, while legal duties fall upon all the parties mentioned, it is the United States (as the launcher and controller of drones) which has least justification to shirk its responsibilities.

The implications of these findings go well beyond the particularities of these weapons, these countries, and these specific uses. The legal obligations enshrined as they are in international humanitarian law, international human rights law, and domestic law, are binding on all parties at all times in relation to any form of violent killing or injury by any party.

Elaborating on the report's implications, Dr Breau said: "States, individually and collectively, need to plan how to work towards conformance with these substantial bodies of law. Members of civil society, particularly those that seek the welfare of the victims of conflict, have a new opportunity to press states towards fulfilling their obligations under law."

This is not asking for the impossible. The killing of Osama bin Laden suggests the lengths to which states will go to confirm their targets when they believe this to be in their own interest. Had the political stakes in avoiding mistaken or disputed

identity not been so high, Bin Laden (and whoever else was in his home) would almost certainly have been typical candidates for a drone attack.

Commenting on the report, Paul Rogers, ORG's Consultant on Global Security and Professor at Bradford University Peace Studies Department, said: "Armed drones are fast becoming the weapons of choice by the United States and its allies in South Asia and the Middle East, yet their use raises major questions about legality which have been very largely ignored. A key and salutary finding of this report is that drone users cannot escape a legal responsibility to expose the human consequences of their attacks. This hugely important and detailed analysis addresses some of the most significant issues involved and deserves the widest coverage, not least in military, legal and political circles." **SP**





India to acquire MQ-4C UAVs

Northrop Grumman has responded to a request for information (RFI) issued by the Indian Government, offering India the MQ-4C, a modified Naval version of combat proven Global Hawk.

According to media reports, India is looking at various options to enhance its maritime surveillance. MQ-4C also known as broad area maritime surveillance (BAMS) UAV based on Global Hawk and will complement the 737 based multimission maritime aircraft (MMA), the P-8A Poseidon.

MQ-4C broad area maritime surveillance UAV will have 36-hour endurance and will be able to operate up to 60,000 ft against strong winds and severe weather, and has a payload of 3,200 lb. MQ-4C will have 2D AESA radar providing it 360 degree coverage over vast section of the ocean. MQ-4C will provide Indian Navy a tactical platform which will be able to scan large sections of Indian Ocean for hostile surface and submarine fleet. **SP**

nEUROn UCAV in final stages of assembly

The final assembly of Dassault nEUROn unmanned combat air vehicle (UCAV) demonstrator is in full swing at Istres, France. According to the company, the six-nation collaborative programme is on schedule. All subassemblies have been delivered, including the low-observable parts of the structure coming from Dassault's Argenteuil and Biarritz factories.

Thierry Prunier, Senior Vice President UAV and UCAV programmes, has said that although only one Neuron air vehicle is being completed for flight test, up to four examples of each subassembly have been built. The additional examples are being tested in the "global integration rig" at Istres, or for other "real-hardware-in-the-loop" tests. Four pre-integration rigs have been used: one at Saint-Cloud, France, for the flight control system; two at Getafe, Spain, for the ground control and datalink management systems; and one at Linköping, Sweden, for avionics.

During the last quarter of 2011, the Dassault Aviation team will perform the ground tests of the nEUROn, which would be followed by the first engine run-up by 2011 end. The maiden flight is scheduled by mid-2012. This will include down time for low-observability testing in a French anechoic chamber, followed by second- and third-phase flight tests in Sweden and Italy.

The nEUROn was originally planned by Dassault as "AVE Grand Duc" and later it evolved into a European cooperation including Swedish Saab, Greek EAB, Swiss RUAG Aerospace, Spanish EADS CASA and Italian Alenia.

The Dassault team, assisted by the teams from various industrial partners, will perform the final layout, piping, electrical wiring and equipment fitting, as defined in the digital mock-up reference established by the six partners on the virtual plateau, as well as the final assembly. **SP**



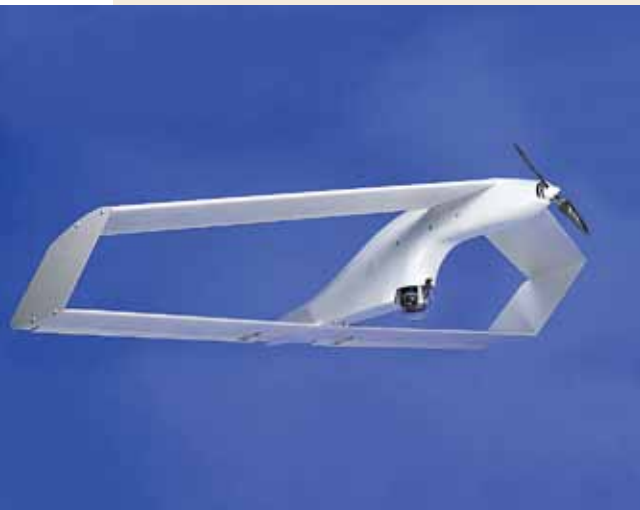


Innocon's MicroFalcon completes multi UAV test flights

Innocon's MicroFalcon mini-UAS has completed flight testing with the multi-UAV configuration. The multi-UAV enables the user to operate the system over a target with a continuous coverage during day and night operation.

Both UAVs are controlled and monitored during the whole time from a single ground control station. In addition, Innocon's ground control station allows the user to switch between the video images of both UAVs.

MicroFalcon is Innocon's lightest UAV at 6 kg. Designed for solider level missions of



over the hill observation, this UAV operates at an altitude of 1,000 feet and stays airborne for 2 hours day or night. Remarkably rugged, with boxed type wings, the MicroFalcon can land upside down using a parachute thereby increasing survivability and cutting down on redeployment cycle.

It's features include: Fully autonomous, single operator design; multi-UAVs operated by one GCS; high precision automatic landings on harsh terrain; backup landing directions in case of GPS lose; smart communications system and all composite construction.

Innocon recently announced the signature of a contract for the supply of 50 MicroFalcon Systems to an unnamed customer in Asia. All 50 systems will be delivered through 2012. Innocon has already sold the MicroFalcon in Peru, the first system is due for delivery in August 2011. SP



Global Hawk completes multi-intelligence sensor flight

The newest Northrop Grumman Corporation built RQ-4 Global Hawk remotely piloted aircraft completed the first of many production acceptance flights of an operational Block 30 multi-intelligence sensor package recently.

The Global Hawk flight marks a new era of increased operational intelligence, surveillance and reconnaissance (ISR) capability flown with multiple sensors simultaneously from a single platform. The multi-intelligence sensor package includes the airborne signals intelligence payload (ASIP) manufactured by Northrop Grumman and the enhanced integrated sensor suite that includes electro-optical/infrared (EO/IR), and synthetic aperture radar (SAR). The ASIP system includes both electronics and communications collection capability.

"Block 30 Global Hawks are currently equipped with both EO/IR and SAR sensors as components of the Enhanced Integrated Sensor Suite (EISS) built by Raytheon, and they have provided round-the-clock support for both military and humanitarian efforts overseas," said George Guerra, HALE Systems Vice President, Northrop Grumman Aerospace Systems. "The ASIP will be added to the EISS on the Block 30 Global Hawks, which will provide a persistent level of intelligence, surveillance and reconnaissance that has never before been provided by any aircraft."

There are currently nine Block 30 Global Hawks located at forward operating locations. In time, those nine Global Hawks will rotate through the Palm-dale facility to have the ASIP sensor added to their current EISS-only Block 30 configuration. It will be a seamless addition because the Block 30s are already configured to accept ASIP. The addition of the ASIP provides the war-fighter with critical ISR collection capability that extends beyond imagery. SP

AAI to work on UAV payloads

AAI Unmanned Aircraft Systems is exploring on the payload capacities of UAVs. It has entered into a five-year research and development deal with the US Army to explore what "payloads," such as cameras or radar systems, can be used on unmanned aircraft. The aircraft systems are used for ground-based intelligence, surveillance and reconnaissance missions.

According to reports, both sides fund their own work and AAI will provide the army with an Aerosonde Mark 4.7 unmanned aircraft. Under the agreement, AAI, an operating unit of Textron Systems, will bring its engineers together with army engineers to work on integration of different equipment on the aircraft systems. SP





Selex Galileo radar selected for Hermes UAV

Elbit Systems has selected the Selex Galileo Gabbiano radar to equip its Hermes UAVs, Selex Galileo has announced.

The mechanically scanned Gabbiano T20 radar will be installed on the Hermes 450 UAV, while the T200 variant will be installed on the Hermes 900, the firm said in a statement.

The Gabbiano radars will offer sea and terrestrial scanning, as well as SAR and ISAR imagery. The first T20 radar will be delivered by Selex by year end. **SP**

Boeing, Northrop Grumman to help US Navy study options for UCLASS

The US Navy will gain insight into the technical risks, challenges and operational benefits of developing a new fleet of unmanned carrier-launched surveillance and strike (UCLASS) aircraft through studies contracted recently to Northrop Grumman Corporation and Boeing separately.

The Northrop Grumman nine-month contract, worth approximately \$5,00,000, was one of four related contracts awarded by the Naval Air Systems Command (NAVAIR). Boeing has received a \$4,80,000 study contract from the US Navy. Under terms of the study contract, Northrop Grumman will support pre-Milestone A activities including developing concepts of operation for a UCLASS system; defining system design and architecture concepts capable of meeting the Navy's desired 2018 limited operational capability; and conducting a cost-schedule-performance analysis of alternative approaches to implementing the proposed UCLASS system.

Under the contract, the company will also help the Navy analyse the relative maturity and near-term availability of UCLASS-relevant technologies; and address system affordability issues by identifying ways to shorten key development, test, and certification timelines.

"The Navy wants UCLASS in the fleet in 2018," said Jimmy

Dodd, vice president, Advanced Boeing Military Aircraft. "Boeing has been delivering carrier-based aircraft to the Navy since 1925. With Boeing's broad experience in unmanned systems and rapid prototyping, and nearly 90 years of carrier-based aircraft know-how, we are prepared to meet that schedule to support the mission and requirements the Navy establishes. This contract is the start of that." **SP**

US drones enter Somalia

Somalia becomes the sixth country where the US has deployed drones in its pilotless war campaign against terrorists. The US UAVs Predator and Reaper drones already operate in Pakistan, Afghanistan, Iraq, Yemen and Libya.

With increasing drone strikes killing both terrorists and civilians, there is a campaign against the arbitrary use of drones.



The closure of Shamsi airbase in Pakistan is unlikely to end the strikes. The CIA has moved its drones to bases across the border in Afghanistan, and some strikes have already taken place from there, according to a senior Pakistani military official.

This fortnight, three suspected US missile strikes in north-western Pakistan have killed at least 38 alleged militants, as pressure mounts on the US to stop these drone attacks. **SP**

Indian students participate in UAV competition

A five-member student team from M.S. Ramaiah Institute of Technology (MSRIT), Bangalore, has for the first time in India developed an UAV with an autopilot system. They recently participated in the eighth annual student Unmanned System Competition in Webster Field, Maryland, USA.

The autopilot system does not require a remote control to manoeuvre the electrically driven aircraft which competed in the 5-7 kg weight category at the event in USA.

The MSRIT team's UAV can fly at speeds between 15-25 metres per second. The team members included - R. Prasanna, Prateek Khanna (both 3rd year), Srikanth Singh, Rahul Rajarsee (both 2nd year) and Vishnu B.V. (1st year). **SP**

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Thousand cuts and counting

As another set of serial blasts ripped through Mumbai's Zaveri Bazaar, Dadar West and Opera House (reportedly on Ajmal Qasab's birthday), news channels exploded – "23 Killed and 141 Wounded", "NSG Hub in Mumbai Put on Alert", "Army Reaction Teams in Mumbai on Alert", "NIA Team Rushes from Delhi", "CFL Team Sent to Mumbai", "Team of BSF Experts Flown to Mumbai", "Leaders Appeal for Calm", "Sonia, PM Condemn Attack", "Stay Calm, Stay at Home", "We Will Not Tolerate Terrorist Attacks", "Pak PM, President Condemn Attack", "Obama Offers Help in Investigations". A former CM is projected on TV expressing horror even before the present CM of the concerned State – the games we play!

You already know the topic of this weekend TV debates. Very soon you will hear "Terrorists Plan to Derail India-Pakistan Dialogue". Same old pattern, same old response! Headlines after a week will read "Obama/Hillary Issues Tough Message to Pakistan". End of story!

Should there be any reason to carry on? After all only common men are hit and they are too many with predictions of India's population stabilising only around 2030. Besides haven't we announced adequate compensations to the dead and injured? So what if their kith and kin keep guessing when the cheques will actually arrive. Shuja Pasha having cognac with Mullen will tell him, "See this time it is Indian Mujahideen, we have nothing to do with it", despite the LeT backing it and even as ISI carves one more notch on the pistol butt.

After many years, the US has acknowledged Pakistan's double game (not that they were not aware of actualities), China is capitalising on it, but we fail to learn. Not our fault really because isn't time at a premium – scams, black money, OBC quotas, forthcoming UP elections et al ! Then we have already sanctioned the NATGRID, no matter if intelligence itself is a casualty. After all we get enough intelligence from foreign countries. Does the cutting edge

of the security sector including CAPF (Combined Armed Police Force) have the wherewithal to optimise the NATGRID? No, but where is the hurry. Let the NATGRID come first. Later we will think of how CAPF can use it. After all the Maoists insurgency is a minor issue, statements of they being the biggest threat only being political.

Let us be clear that terror strikes in India are going to increase as the ISAF/NATO, US forces withdraw from Afghanistan and Pakistan leans more and more on China. Pakistan's ISI and military will keep upping the ante, artfully calibrating our level of tolerance, which remains exceedingly high if only the common man is hit. It is going to be more and more difficult to point the finger at Pakistan. After

all it is not without reason that they started placing armed modules pan-India way back in 1992-93. The terror fabric developed 'within India' is ripe for exploitation and our excellence in corruption and vote bank politics would have given them Indian identities long ago. Can we identify this fabric down to the very yarn and take measures to protect our citizenry? Do we have the political will to do it? That million dollar question was something

being discussed by senior officials unofficially at a recent internal security seminar at the India Habitat Centre. Remember M.J. Akbar's article post-26/11 terrorist strike. He wrote: "Why the dismay over a trawler bringing terrorists all the way from Karachi when every second day a trawler from Karachi touches Mumbai loaded with drugs, courtesy the politician-police nexus. Pakistan has learnt the art of denial and ambiguity from China and is not about to change its policy of terrorism."

The term non-state actor is a misnomer as they cannot survive without state patronage. Don't go by misleading sincerity of Pakistan's toothless polity. India has to fight its own war. Pakistan is controlling our fault lines. We should be controlling theirs. Do we have the will to do it? **SP**

The views expressed herein are the personal views of the author.



After many years, the US has acknowledged Pakistan's double game (not that they were not aware of actualities), China is capitalising on it, but we fail to learn



Mumbai bomb blasts

18 dead, 131 injured

After a gap of 31 months, Mumbai has suffered yet another terror attack as three bomb blasts hit Zaveri Bazaar, Opera House and Dadar within minutes of each other, leaving 18 dead and 131 injured, 23 of them seriously, as of July 14.

The government has ordered a massive investigation into the bomb blasts as no terror organisation has yet claimed any responsibility. The Home Minister, P. Chidambaram categorically stated that 'it was a coordinated terror attack' and that 'all terror groups are suspect and all angles will be investigated.'

As per the preliminary investigations, the blasts at Zaveri Bazaar and Opera House were of medium to high intensity, while the Dadar blast was a low-intensity one. Terrorists had used ammonium nitrate with a timer-device. The bomb at Opera House was hidden under garbage while at Dadar it was placed over a bus shelter. At Zaveri Bazaar, it was concealed under an umbrella near a motorcycle.

The Home Minister has stated that it was 'unfortunate' that there was no intelligence input, but remarked that the 'threat

situation in Mumbai after 26/11 had been reasonably secure and that the Maharashtra Police, in particular Mumbai Police, had 'neutralised' many terrorist plans "which I am not in a position to disclose," he said.

Chidambaram reiterated that Pakistan and Afghanistan continued to be the epicentres of terrorism and that cross-border terrorism was a contentious issue. Recently, two suspected Indian Mujahideen (IM) members Mohammed Mobin Abdul Shaikoor Khan alias Irfan (32) and his cousin Ayub Raja Amin Shaikh (28) were arrested by the Maharashtra Anti-Terrorism Squad on July 6 in Mumbai.

Security alerts were issued in all major cities including New Delhi and Kolkata after the blasts in Mumbai. Meanwhile, the Central Forensic Science Laboratory team has started investigation, while the National Security Guards (NSG) has kept its Mumbai outfit in all readiness.

The Prime Minister, Dr Manmohan Singh has condemned the bomb blasts and said that all possible expert assistance would be provided to the State Government. **SP**



Security India 2011

[By Sucheta Das Mohapatra]

The third edition of the Security India 2011 held at New Delhi highlighted on the merging role of physical and virtual security and its integration with intelligence analytics and enforcement agencies. The conference focused on leveraging technology enablers for internal corporate security. A white paper on 'Changing Landscape of Security and Surveillance' was released on the occasion.

Rajiv Mathur, former Director, Intelligence Bureau, said the security scenario in India is no different from the US or UK. "We are in a catch-22 situation. If we want to prosper, we need to look at not only physical but also intelligence security." The security landscape has changed in the last 15 years with the advent of mobile economy, and this was elaborated further by Sivarama Krishnan, Executive Director, PricewaterhouseCoopers.

Dr Nirmaljeet Singh Kalsi, Joint Secretary, Police, Ministry of Home Affairs, said that cyber crime has increased as cyber weapons cost much less than other weapons. He spoke about

the Central Government's Crime and Criminal Tracking Network System (CCTNS) project to facilitate storage, transfer and sharing of data and information between police stations' and the state headquarters and the Central Police Organisations.

The sessions on the 'Merging Role of Physical and Digital Security' threw light on understanding the difference and objective synergy, genesis and essence of attack, transnational character of cyber attacks, real-time information monitoring data management, malicious intrusion or unauthorised access, etc. The discussions on 'Impact of Convergence on Information Security' included leveraging technology enablers for threat identification, need for indigenous IT products to minimise probability of veiled threats, intelligence information analytics, authorisation and access authentication, etc.

The session on 'How Secure Is Your Workplace for Business Continuity' included; the law enforcers, users (malls, financial institutions and enterprise) and technology provides as well. The last session on 'Integrated Approach for a Secured Eco-system' tinted on challenges faced in adoption of global technologies in India and the need to build a security roadmap. **SP**



Raj Kumar Singh new Home Secretary

Raj Kumar Singh has recently taken charge as Union Home Secretary following the retirement of Gopal Krishna Pillai. Singh is an IAS officer of the 1975 batch and belongs to the Bihar cadre. Before joining the Ministry of Home Affairs (MHA), he was Secretary, Department of Defence Production, Ministry of Defence. He has served in his cadre and at the Centre in various capacities including as Home Secretary of Bihar and Joint Secretary in MHA.



The new Home Secretary said that ongoing initiatives taken by the MHA to meet the challenges facing the nation will be further strengthened and that the country had the resilience to meet these challenges. **SP**

Government to invest \$1 billion in internal security modernisation

The Government of India will be investing around \$1 billion on internal security modernisation programmes, according to S. Suresh Kumar, Joint Secretary, Police Modernisation, Ministry of Home Affairs.

Delivering a talk at the 5th International Conference and Exhibition on "Internal Security: Integrating Technologies for Internal Security", he said that nearly 70 per cent of the procurements would be equipments and solutions for security.

Inspector General (Modernisation), Bureau of Police R&D, M.K. Chhabra said India needed customised security solutions, given the geographical diversity and multiplicity of threats.

Rothin Bhattacharyya, Chairman CII Internal Security Committee said that quantification of allocation for internal security would help the industry to make its business plans and enter into internal security market with unprecedented vigour. **SP**

Report on information management in security

The Confederation of Indian Industry (CII) and Accenture has released a joint report on how security agencies can be better equipped with effective information management tools, methodologies and analytic capabilities to protect national interests and safeguard citizens in the face of rising security threats, such as cyber attacks or terrorism.

According to the report, titled "Better Information Management Leads to Better Internal Security" agencies are tasked with developing pursuable leads from a mountain of data that is often incomplete and imperfect, so analysts waste valuable time on dead-end leads and fail to capitalise on essential information

that might enrich a critical investigation.

The report states that by implementing intelligence-led law enforcement — a proven model of internal security management in which information serves as a guide to operations — security agencies can leverage advanced IT-based information gathering and analysis platforms for integrated knowledge modelling, link analysis and discovery. This innovative investigative capability merges strategy, process and technology to improve the quality and reliability of knowledge discovery.

"The need of the hour is effective and intelligent information management that enables security agencies to reduce costs, by minimising waste and duplication, and increase efficient use of information gathering resources," said Krishna Giri, managing director for Accenture's Health & Public Service business in India. **SP**

Internal security task force set up

The Government of India has set up a task force to review internal security scenario of the country. The task force is headed by the former Cabinet Secretary Naresh Chandra.

"A task force has been set up under the chairmanship of former Cabinet Secretary Naresh Chandra to review the existing processes, procedures and practices in the national security system," the government said in a press statement. "It will suggest measures where necessary for strengthening of the national security apparatus and in non-conventional areas having a bearing on the overall security situation."

Some of the other members include former Intelligence Bureau Chief P.C. Halder; former Research and Analysis Wing (RAW) Chief K.C. Verma; Admiral (Retd) Arun Prakash; Air Chief Marshal (Retd) S. Krishnaswamy; Lt General (Retd) V.R. Raghavan and former Union Home Secretary V.K. Duggal. **SP**

New US counter-terrorism chief

The US President Barack Obama's choice for his next counter-terrorism chief is Matthew Olsen, a former prosecutor with extensive experience in intelligence matters for the federal government, the White House has announced. Olsen would replace Michael Leiter.

The agency is charged with analysing and integrating information gathered across the intelligence community and then providing assessments to the President and other senior policy-makers.

Olsen, 49, currently serves as the general counsel for the National Security Agency. He has also held high-level roles in overseeing intelligence matters at the Justice Department and the FBI. From 2009 to 2010, Olsen directed the task force that, on Obama's orders, reviewed the intelligence on detainees held at the Guantanamo Bay prison in Cuba. **SP**





3M Security debuts world's first multilateral border crossing programme

3M Security Systems has debuted the world's first multilateral border crossing programme which will enable hassle-free travel between participating nations of the Caribbean Community (CARICOM).

Called 'CARIPASS', the first multilateral border crossing programme in the world, is a voluntary travel card programme that provides secure and simple border crossings for citizens and legal residents of 10 CARICOM nations. With the introduction of

CARIPASS, participating governments aim to enhance regional security and support expedited travel throughout the participating member States.

To participate in CARIPASS, eligible travellers must pre-enroll at local immigration or designated offices, and have a facial image and two fingerprint images captured. Users are then issued a card with a 2D bar code which they can use to electronically process through self-service border crossing gates. These gates are connected to the system's user database, and after matching the user's biometric data with that on the card, the gates open, allowing the traveler to pass through. The gate prints a receipt for the traveller to document his or her valid entry. **SP**

Malware imported into US in foreign-made components

Malware built into imported electronic components sold in the United States poses a serious threat to US economy and security, Greg Schaffer, acting Deputy Undersecretary for the National Protection and Programmes Directorate at the US Department of Homeland Security (DHS) has said.

Greg Schaffer said the threat is "one of the most complicated and difficult challenges we have". In a testimony before the House Oversight and Government Reform Committee, he said that the threat is "one of the most complicated and difficult challenges we have," adding that he is "aware that there are instances where that has happened."

Schaffer said that cyber-securing the US supply chain requires securing the multiple steps of the supply chain — product assembly and acquisition, data sharing among partners, governance, and more — to ensure components of devices such as laptops and smartphones are not already infected by malware before they are sold. **SP**



Panetta believes US close to defeating Al-Qaeda

The US Defense Secretary Leon E. Panetta has said that the US "is within reach of strategically defeating Al-Qaeda." Panetta, who arrived in Afghanistan in early July, said the US has identified some of the key Al-Qaeda leadership in Pakistan, Yemen and other areas.

"If we can be successful in going after them, I think we can really undermine their ability to do any kind of planning, to be able to conduct any kind of attack on this country," the Secretary said and added "It's within reach. Is it going to take more work? You bet it is."

The Secretary pointed out that there were between 10 and 20 key Al-Qaeda leaders in areas like Pakistan, Yemen, Somalia and North Africa and tracking them down would mean the defeat of the terror organisation. "We have undermined their ability to conduct 9/11-type attacks," he said. "We have them on the run. Now is the moment, following what happened to (Osama) bin Laden to put maximum pressure on them, because I do believe if we continue this effort we can cripple Al-Qaeda as a threat." **SP**



World Drug Report

Intake of synthetic drugs rises

While global markets for cocaine, heroin and cannabis declined or remained stable, the production and abuse of prescription opioid drugs and new synthetic drugs rose, according to the World Drug Report 2011. Illicit cultivation of opium poppy and coca bush remained limited to a few countries. Although there was a sharp decline in opium production and a modest reduction in coca cultivation, overall, the manufacture of heroin and cocaine was still significant.

Globally, some 210 million people, or 4.8 per cent of the population aged 15-64, took illicit substances at least once in the previous year. Overall drug use, including problem drug use (0.6 per cent of the population aged 15-64), remained stable. However, demand soared for substances not under international control, such as piperazine and cathinone. The effects of cannabis are also being mimicked by synthetic cannabinoids, or “spice”.

Less opium in Afghanistan, slight increase in Myanmar

Global opium poppy cultivation reached some 1,95,700 hectares (ha) in 2010, a small increase over 2009. Opium production declined, however, by 38 per cent to 4,860 tonnes due to a blight that wiped out much of the opium harvest in Afghanistan. The bulk of opium production still took place in Afghanistan (3,600 tonnes or 74 per cent of the global total). While cultivation in Afghanistan remained stable, the global trend was mainly driven by increases in Myanmar, where cultivation rose by some 20 per cent from 2009. Global opium production declined by 45 per cent between 2007 and 2010, particularly as a result of poor yields in 2010, but this trend is unlikely to continue. “Though the area under poppy cultivation may have remained stable this year, our preliminary findings indicate that Afghan opium production will probably rebound to high levels in 2011”, warned Yury Fedotov, Executive Director of the United Nations Office on Drugs and Crime (UNODC).

Global cocaine cultivation lessens

The global area under coca cultivation shrank to 1,49,100 ha in 2010, an 18 per cent drop from 2007. During that time, potential cocaine production fell by about one-sixth, reflecting the significant decrease in cocaine production in Colombia.

The US cocaine market has witnessed massive declines in recent years. Nevertheless, the US continues to be largest cocaine

market, with an estimated consumption of 157 tonnes of cocaine in 2009, equivalent to 36 per cent of global consumption. The second largest cocaine market is Europe, notably West and Central Europe, where consumption is estimated at 123 tonnes.

Cannabis remains by far the most widely produced and consumed illicit substance globally, although data on cannabis are limited. In 2009, between 2.8 per cent and 4.5 per cent of the world population aged 15-64 — between 125 and 203 million people — had used cannabis at least once in the past year.

While cannabis herb (marijuana) production is widespread, notably in the Americas and Africa, cannabis resin production (hashish) continues to be concentrated in just two countries: Morocco, supplying the West European and North African markets, and Afghanistan supplying the markets in South-West Asia. Cannabis resin was a far more profitable crop than opium poppy in 2010 in Afghanistan.



Synthetic drugs – South-East Asia and Africa under the radar

Soaring production, trafficking and consumption of amphetamine-type stimulants accompanied by a resurgence in opium cultivation and heroin trafficking are a big concern in South-East Asia.

“The Golden Triangle is not just about opium anymore; it’s a business that caters to consumers. The international community seems to have taken its eye off the ball on drug control in South-East Asia,” he said. “We have to be proactive on all fronts before the region again becomes a major drugs hub.”

Methamphetamine, a highly addictive substance, is sweeping across East Asia and has started to increase again in North America in 2009, following several years of decline. Although Myanmar is one of the primary sources of methamphetamine pills in South-East Asia, Africa is also emerging as a source of methamphetamine destined for East Asia.

Multilateral response to illicit drugs

Fedotov stressed the principle of ‘shared responsibility’ and the need to build national, regional and international efforts in a comprehensive strategy on the cultivation, production and trafficking of drugs. “Drugs cause some 2,00,000 deaths a year. Since people with serious drug problems provide the bulk of drug demand, treating this problem is one of the best ways of shrinking the market,” he said. SP



International Cyber Security Protection Alliance (ICSPA) launched

For the first time, leading international businesses, government and law enforcement agencies are coming together in a bid to tackle the issue.

Launched in London on July 5, the International Cyber Security Protection Alliance (ICSPA) is focused on taking the fight to cyber criminals. It plans to disrupt their activities by providing more resources, tools and expertise to law enforcement agencies in countries that face the greatest challenges or potentially act as hosts; helping them be more successful in their fight against cybercrime.

The UK Prime Minister David Cameron said: "Our government has already injected an additional £650 million to help improve

our national infrastructure and protect against cybercrime, but the very nature of this threat calls for more than a national response; it demands a truly global response and that is what the International Cyber Security Protection Alliance is all about.

"By forging new relationships between businesses, governments and law enforcement officers all over the world, by investing in new training, and by building an international exchange of expertise, the ICSPA is forming a network powerful enough and wide enough, to face down cybercrime."

With support from its founding member companies, including McAfee Inc, Cassidian Systems (an EADS company), Trend Micro and Visa Europe, ICSPA's goal is to improve international law enforcement capability and capacity to help protect businesses and their customers against this unprecedented threat.

In a significant development, it was also announced that Europol, the European law enforcement agency, will form a strategic partnership with the ICSPA. **SP**

Cassidian joins ICSPA

Cassidian's high edge cyber experts will collaborate with a new alliance of major organizations, law enforcement agencies and governments to tackle cyber crime, the International Cyber Security Protection Alliance.

Cassidian will help international law enforcement agencies enhance the online safety & security of business communities. Cassidian plans to share the knowledge, intelligence and best practice gained from many years of experience in the cyber security domain.

Cassidian delivers specialized training courses and technical solutions that help governments and enterprises increase their cyber awareness, understand the latest forms of cyber attack, identify their risks and vulnerabilities, establish prevention strategies and implement solutions that quickly identify and mitigate cyber-attacks. **SP**

Lockheed Martin achieves technology services milestone

Lockheed Martin announced the successful achievement of ISO 20000 certification for its Information Systems & Global Solutions business area. The IT services certification complements the information security ISO 27001 certification which was announced in November of 2009 wherein Lockheed Martin became the first major systems integrator to achieve this designation.

The attainment of two internationally recognized certifications in IT services and information security standards positions Lockheed Martin as one of five US-based companies and government organisations to accomplish these combined milestones.

"These critical IT services and security certifications are key to meeting Lockheed Martin's goals in the areas of program and performance excellence," said Rick Johnson, Vice President and Chief Technology Officer of Lockheed Martin Information Systems & Global Solutions. "The achievement is a significant benefit we can now provide on our more than 2,300 customer contracts and 17,000 suppliers that rely on resilient systems and trusted services to meet their core mission goals." **SP**

NSG website not hacked: Government

The Central government has clarified that there was no indication that the website of National Security Guard (NSG) had been hacked. A PIB release said there is no indication that NSG website has been hacked. "The website does not contain any sensitive data. It is, in fact, meant for public use containing information of general nature that might be useful to the general public. The present website is being revamped with the help of National Informatics Centre to make it more useful and more secure following government guidelines on the subject. The process of revamping is going on for the past few months as a matter of administrative routine. It is not in any way connected with any suspected hacking.

"What is suspected to be an attempt of hacking and which could be a result of some malware inadvertently downloaded from the Internet, relates to one particular stand-alone computer which is not on any NSG/Government network. This computer is being examined utilising services of cyber experts. This computer does not store any sensitive information and is not used by any senior officer. It is to be noted that as a matter of precaution, NSG does not store sensitive data on Internet connected computers/networks." **SP**

Security gaps found in iPhones, iPad

Reports in the media have indicated that a new security gap has opened up in Apple's iPhone, iPad and iPod Touch devices, making room for susceptibility to hacker attacks. Flaws in the software running those devices came to light after a German security agency warned that criminals could use them to steal confidential data off the devices.

Apple said that it is working on a fix that will be distributed in an upcoming software upgrade. With the security hole, an attacker can get malicious software onto a device by tricking its owner into clicking an infected PDF file. **SP**



RFI/RFP/TENDERS

Indian Army**RFI: Spatial Disorientation Simulator**

Branch name: Army Aviation

Publication date: May 20

Last date: July 20

TENDER: Supply of 160mm motor HE ammunition

Branch name: Army Ordnance Corps

Publication date: January 25

Last date: August 2

RFI: Mine Protection Gear (MPG)

Branch name: E-in-C Br

Publication date: May 23

Last date: August 31

*Source: www.indianarmy.nic.in***Indian Navy****RFI: Multi-mission maritime aircraft**

Indian Coast Guard

Publication date: June 14

Last date: July 30

RFI: Shipborne precision approach radar

Indian Navy

Publication date: July 8

Last date: July 29

Indian Air Force**Tender: Supply of AN-32 spares**

Air Hqrs

Publication date: June 9

Last date: July 19

Tender: Supply of MI Series spares

Air Hqrs

Publication date: May 20

Last date: July 21

Ministry of Home Affairs**Tender: Video surveillance system**

Central Industrial Security Force

Publication date: June 23

Last date: July 19

Tender: Explosive detector

Central Industrial Security Force

Publication date: June 2

Last date: July 21

Raytheon's walk-in flight simulator

Using a 4D walk-in simulator at the 2011 Paris Air Show, Raytheon showcased its role as the leader in the development, manufacturing and installation of state-of-the-art situational awareness technology for fixed and rotary wing aircraft. Raytheon's situational awareness technology can be added to existing aircraft with no operational flight programme or mission computer impact, allowing aging instruments to be easily upgraded, quickly and economically, on platforms such as the F-16.

"What you are going to see in the evolution of technology is bringing more sensory experience into the cockpit," said Chief Engineer Todd Lovell, of Customized Engineering and Depot Services at Raytheon Technical Services Company. "There is so much information coming into the cockpit that you cannot take it in with just your eyes anymore; now it is going to be eyes, ears and maybe even touch as we go forward." **SP**



AmSafe introduces fire-proof cargo pallet cover

AmSafe Industries, Inc., the leading provider of engineered restraint systems to the aviation, defence and specialty vehicle markets, has introduced its fire containment cover which is designed to ensure the safety and integrity of palletised cargo.

AmSafe's fire containment cover operates as a passive system which keeps a fire isolated from other cargo being transported on an aircraft. Designed for palletised loads, the AmSafe fire cover is comprised of a patented fire retardant fabric with a detachable QuickZip pallet net, and can contain a fire with temperatures of up to 1,500°F (815°C) for over four hours. This combination of net and fabric cover provides a two-way fire barrier that effectively isolates each cargo position and prevents any fire from spreading and escalating. The AmSafe fire containment cover suppresses the localised threat through oxygen starvation.

"The rise in consumer Internet trading has led to a massive increase in the transportation of high-tech equipment around the world and it is often not appreciated that these goods can cause serious fires if not correctly categorised and protected for shipment," said Ian Kentfield, Senior Vice President of AmSafe Industries, Inc. "The design of our fire cover allows the safe global shipping of high-technology products, and at the same time reduces the fire concerns expressed by cargo carriers and commercial airlines." **SP**



Rheinmetall unveils new ammunition

Rheinmetall recently revealed a new 120mm HE round to a group of international experts at its proving ground in Germany. It can be fired from any in-service 120mm smoothbore gun (L44 and L55). Dubbed the DM11, the new ammunition was developed on behalf of the German Ministry of Defence. It enables main battle tanks to respond more effectively to a variety of contemporary threats.

The round has already been fielded by the US Marine Corp, which refers to it as the Multipurpose (MP) DM11. The marines use it primarily for engaging non-armoured and lightly armoured targets in asymmetric encounters. Its long range makes a significant contribution to protecting friendly forces from attack by enemy combatants armed with short- and medium-range weapons. **SP**



Boeing and TAAG deliver books to Angola

Boeing partnered with Angola flag carrier TAAG Linhas Aereas de Angola (Angola Airlines) to transport 3,357 kg of professional and technical books to deliver them to Agostinho Neto University in Luanda, Angola.

"Boeing has a long relationship with not only TAAG but the people of Angola," said J. Miguel Santos, Sales Director for the Southern Africa region. "Boeing works hard to look for opportunities to make things like this happen around the globe. I'm extremely pleased and proud that we can provide this donation to the university, both professionally as a representative of Boeing and personally as I spent my childhood in Angola."

Over the years, Boeing has facilitated 130 humanitarian delivery flights, working in partnership with nearly 50 different airlines worldwide. **SP**



FN Herstal acquires Noptel

Belgium-based firearms manufacturer FN Herstal has acquired Finnish Company Noptel Oy, specialised in laser range finding technology. Over the last few years, FN Herstal and Noptel have worked together and designed and developed the new FN fire control unit (FN FCU) for military, law enforcement and Special Forces operators.

The FN FCU significantly maximises first-round hit probability when shooting 40mm LV tube-launched grenades, resulting in immediate target neutralisation and improved soldier survivability. Two models are available today: the FN FCU-850N with a laser beam of 850nm and the FN FCU-1.5M with a laser beam of 1,550nm. Both offer similar aiming/firing capabilities and benefits, with the FN FCU-1.5M featuring a laser range finder undetectable with night vision goggles. **SP**



Vivek Lall scouting for global partners

Vivek Lall, the former head of Boeing's defence, space and security operations in India, is busy getting Reliance Industries Limited start off its new venture in defence and aerospace segments. He was busy at the Paris Air Show 2011 and then travelled to Israel looking at business opportunities.

His business card reads President & CEO, New Venture and has a Reliance e-mail ID. He told *SP's M.A.I.*: "I would like to do something for the country and Reliance has major plans of partnering with global leaders in homeland security. We will make the announcements soon." **SP**



ITT's new VP of government relations

ITT Corporation has announced the appointment of retired US Army Lt. General Robert E. Durbin as Vice President, government relations for its ITT Defense & Information Solutions segment.

In this role, he will be responsible for building productive and effective relationships with members of US Congress and Congressional committees and their staffs in order to provide guidance on proposed legislation and regulation issues that have an impact on ITT Defense programmes. **SP**

SECURITY EVENTS

5th Counter IED Summit

25-27 July
Wyndham Tampa Westshore,
Tampa, FL, USA
www.counteriedsummit.com

6th Night Vision Systems

25-27 July
Marriott Hotel Washington, Washington
DC Metro Area, USA
www.nightvisionevent.com

Military Vehicles Exhibition & Conference

9-11 August
Cobo Convention Center, Detroit,
MI, USA
www.militaryvehiclesexpo.com

Armoured Vehicles South Africa

22-24 August
Sheraton Hotel Pretoria, South Africa
www.armouredvehiclesevent.co.za

DEFTECH 2011

24-25 August
Manekshaw Centre, Swarna Jayanti Marg,
Delhi Cantt, New Delhi
www.ci defence.com/deftech2011.asp?id=12

2nd Annual Modeling & Simulation Summit

29-31 August
Venue to be Confirmed, Orlando,
FL, USA
www.modelingandsimulationevent.com

Soldier Equipment and Technology Expo - Fort Bragg

30 August -1 September
Fort Bragg Club, North Carolina, USA
<http://www.soldierequipmentexpo.com/Event.aspx?id=479034>

Future Artillery Asia

6-7 September
Swissôtel Merchant Court Hotel,
Singapore
www.futureartilleryasia.com/Event.aspx?id=494266

Submarine Operations & Requirements Asia

7-8 September
Venue to be confirmed, KL, Malaysia
www.submarinesasia.com



Indian-American engineer sells B-2 Bomber secrets

Early in 2011, a US court sentenced to imprisonment a former Indian-American, Noshir Gowadia, who was noted for designing the propulsion systems for the B-2 Bomber, while working with Northrop Corp, now Northrop Grumman. He was arrested in 2005.

Gowadia, 66, is said to have got over \$1,00,000 from the sale of

military secrets and showing his Chinese contacts how his stealth cruise missile design would be effective against US air-to-air missiles. Between 2003 and 2005 Gowadia made six secret trips into mainland China and exchanged numerous communications to help Chinese defence engineers design a cruise missile that is able to evade air-to-air, heat-seeking missiles, they said.

Gowadia moved from India to the US for post-graduate studies in the 1960s and became a US citizen about a decade later. He retired from Northrop for health reasons in 1986, two years before the B-2 made its public debut. **SP**

Small plane enters Camp David airspace

There was a minor flutter when President Barack Obama was camping at Camp David in Maryland, the Presidential retreat in July. A small airplane entered the restricted airspace as its radio communication is said to have failed. However, F-15 fighter jets hit the skies immediately and intercepted the aircraft, taking it out of the restricted airspace. The small plane landed without incident. **SP**

FBI agent who worked for the Soviets

Robert Philip Hanssen, a career FBI agent who provided intelligence to the Soviets, finally landed in prison. Hanssen, who provided the names of operatives and double agents in exchange for over \$1 million in cash and diamonds between 1979 and 1999, was arrested.

At the time of the arrest at a park in Vienna, Virginia, Hanssen, age 56, was clandestinely placing a package containing highly classified information at a pre-arranged, or "dead drop," site for pick-up by his Russian handlers. Hanssen had previously

received substantial sums of money from the Russians for the information he disclosed to them.

Ironically, Hanssen at times even headed the FBI unit responsible for tracking and arresting Soviet agents. **SP**

Chinese steals military application trade secrets

Xiaodong Sheldon Meng, while working for defence contractor Quantum3D, engaged in espionage activities in the behalf of the People's Republic of China between 2002 and 2006. Meng was the first person convicted under the Economic Espionage Act of 1996.

He was charged by US court with stealing military combat and commercial simulation software and other materials from his former employer Quantum3D, a company based in San Jose, California.

The indictment alleges that Meng stole numerous Quantum3D products, including viXsen and nVSensor, which were used exclusively in military applications, and designed for precision training of military fighter pilots in night vision scenarios among other applications. Both viXsen and nVSensor are classified as defence articles on the US Munitions List and cannot be exported outside the US without an export licence. **SP**

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