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MILITARY AEROSPACE INTERNAL SECURITY

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Obama authorises military strikes against ISIS leadership

the US President Barack Obama has authorised the Pentagon to target and kill leaders of the Islamic State militant group, with the organisation's head Abu Bakr al-Baghdadi being at the top of the administration's list.

Obama had approved the strikes against individual targets for the first time. The authorisation was first reported by the *Washington Post*. Obama had previously not permitted the military to target individuals from the terrorist organisation, also known as ISIS or ISIL, even if intelligence showed where they were located.

White House Press Secretary Josh Earnest said in a press briefing that the President is "actively engaged" in



selecting possible Islamic State targets that are available. "The President has gotten guidance about targets that are available and would be critical to denying ISIL a safe haven both in Iraq and in Syria," Earnest said.

Earnest added that the administration has identified the targets through ramped up "intelligence, surveillance and reconnaissance assets" in the region.

Pentagon spokesman Rear Admiral John Kirby said that destroying a group like the Islamic State requires an "aggressive" approach, which includes "disrupting their ability to command and control and to lead their own forces."

Obama announced that he is sharply escalating the US military campaign against militants, authorising US airstrikes in Syria along with expanded airstrikes in Iraq.



Cover:

After the summit meeting on September 1, 2014, between Prime Ministers Shinzo Abe and Narendra Modi, India and Japan will witness an enhanced and new era of cooperation between the two countries in defence and security arena.

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Constructive engagement with neighbours and beyond

ou can call it a masterstroke. Engaging not just the neighbours, okay there are some continuing irritants, but also those in the region, Narendra Modi has shown statesmanship qualities as Prime Minister. Except for Pakistan which continues to pose a problem, there are significant positive signs that have emerged on the external affairs front. The latest being Narendra Modi's engagement with Japan on several matters that are crucial not just for bilateral relations but also for a stable geopolitical scenario.

As many have termed it as 'dawn of a new era in India-Japan relations, it truly is considering that the two Prime Ministers-Narendra Modi and Shinzo Abe—have put the seal on the Tokyo Declaration of September: the India-Japan Special Strategic and Global Partnership. One of the highlights of the Indian Prime Minister's visit was in the realm of defence wherein the bilateral maritime exercises were institutionalised. Importantly, there is going to be significant activity in transfer of technology in defence, beginning with the US-2 amphibian aircraft offer from Japan. Lt General P.C. Katoch (Retd) and Ranjeet Kumar have analysed differently the significance of Narendra Modi's visit to Japan.

Subsequent to that, the Australian Prime Minister, Tony Abbott, came calling to India and the meeting with the Indian Prime Minister was fruitful for many reasons. The two countries signed the historic Civil Nuclear Cooperation Agreement which will facilitate sale of uranium fuel to India, without which the country's 20 odd nuclear power plants are running on partial capacity. The resurgence of India has encouraged Australia in entering into a nuclear deal and we believe that this is not just a one-off case. India is going to see many more partnerships as it gets into an economic drive.

These two meetings have made it amply clear what India's nuclear policy is. It may be recalled that after the Pokhran nuclear tests, India had declared a no first-use policy and announced a nuclear doctrine based on a credible nuclear deterrence, which means that the country will maintain an effective arsenal to retaliate if attacked. India had declared that the country's armed forces will have a second strike capability from land, air or sea. The Prime Minister assured before going to Japan that "we are not taking any initiative for a review of our nuclear doctrine."

Following up on the issue of 49 per cent cap on foreign direct

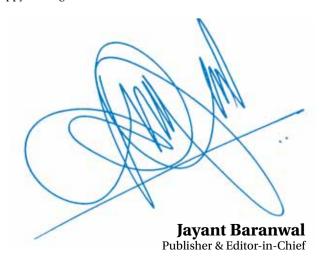
investment (FDI), we have two major original equipment manufacturers—Lockheed Martin and Saab—spell out their strategies. Saab has pointed out that there is absolutely no limit on FDI in Sweden.

In his frank and forthright viewpoint, Lt General Katoch (Retd) has talked about the latest video from Al Oaeda leader announcing the formation of an Indian branch of his militant group to spread Islamic rule and raise the flag of jihad. The General has categorically stated that this is our fight and we have to fight it ourselves, while there is so much big talk of international cooperation for countering terrorism. He points out that at best there could be sharing of intelligence.

Finally, the Indian Armed Forces have once again performed beyond their call of duty in meeting with the challenges of disaster management and saving precious lives during the recent flood relief operations in Jammu and Kashmir. In an article, we look at their efforts in the valley during the calamity. Salutations to the Indian armed forces for their bravery and dedication to the nation!

SP's M.A.I. continues to focus on issues that are critical to the nation. In this endeavour, we look forward to your feedback to improve our coverage.

Happy reading!



Breakthrough in indigenous E/O sensor technology

heartening new indigenous development could take care of India's over-dependence on foreign suppliers for critical electro-optical sensors for surface payloads. The DRDO's Instruments Research and Development Establishment (IRDE) in Dehradun has developed a stabilised electro-optical sight (SEOS) with two-axis stabilisation and an integrated automatic video tracker facility. The indigenous SEOS has three electro-optical sensors, third-generation $3-5 \mu m$ (640 x 512 FPA) thermal imager (TI) with optical zoom, colour day TV with optical zoom camera and eye-safe laser range finder (ELRF). The day TV camera and TI sport a narrow field of view



(NFOV) of 0.8° x 0.6° and wide field of view (WFOV) of 5° x 4° with additional 2 X electronic zoom in TI. These sensors provide a recognition range of seven km for a NATO type of target. ELRF provides range of the target from 200 metres to 9,995 metres with an accuracy of ± 5 metres. According to DRDO, "The modular approach of this sight results into a quick customisation for different applications namely fire control solution for armoured fighting vehicles, surveillance from high speed boats and low altitude aerostat, and tracking system for a QR-SAM." The DRDO will be looking to integrate the new sight onto a slew of upcoming products.

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Tender for snow survey aircraft

he DRDO's Chandigarhbased Snow & Avalanche Study Establishment (SASE) has published a requirement for one advanced surveillance aircraft to undertake snow and avalanche studies in the high altitude northern parts of India. The SASE is looking for a twin-engine platform with an operating altitude of 32,000 feet, a range of 2,000 km and a maximum payload of 690 kg, including one passenger. The MTOW of the aircraft needs to be a minimum of 5,000 kg. The aircraft should be capable to operate



from airfields up to 3,300 metre AMSL and also cold start up to (-20 degree Celsius) without adverse impact on engine, which should have self-contained starting system capable of minimum three or more consecutive internal starts without any adverse effect. Obviously, the aircraft needs to be fully tropicalised and capable of prolonged operations in heat, dust, cold and high humidity conditions prevalent in India. SASE wants a highly capable aircraft sporting a glass cockpit, and sporting the following avionics and communications systems: dual VHF COM, single HF COM, dual navigation receivers integrating VOR, LOC, ILS, single flight management system (FMS), flight data recorder/CVFDR-120 min, dual air computers (ADC)/autopilot, attitude heading reference system (AHRS). automatic flight guidance system, colour weather radar (≥200Nm range) with storm scope, traffic alert and collision avoidance System (TCAS II), terrain awareness and warning system (TAWS), RVSM (reverse vertical separation minimum) compliance, intercom/ headsets, transponder C & S with data enabling, dual GPS with R-NAV or P-RNAV compliance and ELT (emergency location transmitter).

ADE scouts mini flying test bed

he Aeronautical Devel-Establishment opment (ADE), the DRDO's laboratory focusing on unmanned air systems, has published a requirement for a mini flying test bed. Interestingly, it has mentioned that the UAV Factory LLC Penguin BE electric UAV meets its requirements, but that it will consider other platforms with similar parameters and configuration. The UAV needs to have a take-off weight greater than 20 kg and an endurance of 2 hours or more and a length/wingspan of



3 metres each. The UAV needs to come with the ability to switch between an electric engine and an IC engine. The UAV have a payload capacity of minimum 6 kg with a take-off run of less than 30 metres and an altitude of about 6 km. The ADE has listed mandatory features on the test bed UAV, including modular composite structure, fast assembly, large access hatches, removable payload bay, airframe should be ready for the autopilot and payload integration, provision for swappable universal payload mount, preinstalled main landing gear, steerable suspension nose leg with servo, wing GPS compartment, low noise, low vibration, digital servos, push-pull connectors between the wing and tail plane, propeller assembly, aluminium servo mounts for wing and tail plane and servo wiring.



Dr Vivek Lall -CEO of General Atomics

Dr Vivek Lall, an enterprising aerospace and defence expert, has held various key appointments in the past. Of late he headed Boeing India operations and later took over as President & CEO of Reliance New Ventures. He is affiliated with the United Nations in New York to advise on broadband and cyber security issues. Dr Lall has taken over as the Chief Executive of General Atomics headquartered in San Diego and will be overseeing the global operations of the company. Dr Lall speaks to SP's on September 3 in his first official interview indicating on the plans and strengths of General Atomics.

"India is increasingly becoming the epicentre of great innovation and it is critical that we help contribute to its growth and technological prowess."

SP's M.A.I. (SP's): Congratulations on taking over as CEO of one of the world's most technology driven companies headquartered in US. Can you indicate on your foreseeable roles within the company and for the company?

Vivek Lall: Many thanks, Jayant. As Chief Executive globally responsible for commercial strategic development it becomes imperative for me that the cutting-edge technologies developed by the world's leading scientists and engineers are of benefit to US and international governments and customers.

SP's: General Atomics is renowned for its contribution towards nuclear sector. Can you elaborate on this? Its initial charter was focused towards peaceful missions of atomic energy. Can you take us to the journey from that point to the current vastly expanded capabilities?

Vivek Lall: General Atomics (GA) had an initial charter to explore peaceful uses of atomic energy. Leading scientists came to GA, forming the nucleus of the human resources. GA carries out the largest and most successful nuclear fusion programme in private industry. The company has been the primary developer of modular helium-cooled nuclear power reactor systems, and its TRIGA* research reactors have operated around the world for over 50 years. General Atomics is committed to developing innovative energy solutions to meet global needs. We are focused on the fundamental theoretical research needed for sustainable, alternative technologies that are safe and economical through improved performance. And with over

50 years of experience, General Atomics plays an important role in nuclear research and scientific discovery.

SP's: What are the core strengths of the company as of today?

Vivek Lall: In addition to what has been mentioned, GA develops electromagnetic aircraft launch and recovery systems for the US Navy as well as electromagnetic railgun launchers, pulsed power systems and projectiles. General Atomics Aeronautical Systems is a world leader in proven, reliable unmanned aircraft systems (UAS) and tactical reconnaissance radars, as well as advanced high-resolution surveillance systems. GA produces a variety of high technology products from high-energy capacitors and nuclear/radiation monitoring systems, to de-icing products and diagnostic enzymes.

SP's: How would you view, as the CEO of General Atomics, India as part of your global expansion and global marketing strategy?

Vivek Lall: India is increasingly becoming the epicentre of great innovation and it is critical that we help contribute to its growth and technological prowess.

SP's: How do you find the policy initiatives by the new government in India?

Vivek Lall: It is very encouraging that the new government is working actively to create an enabling environment for catalysing true technology growth and innovation. One element of that enabling environment is FDI policy. I am very optimistic about the future prospects.



Tokyo Declaration – Adding to achhe din

[By Lt General P.C. Katoch (Retd)]

apan, the 'Land of the Rising Sun,' witnessed the dawn of a new era in India-Japan relations as Prime Ministers Narendra Modi and Shinzo Abe put the seal on the Tokyo Declaration of September 1, 2014; theIndia-Japan Special Strategic and Global Partnership. Prime Minister Modi spoke about Japan's importance in India's foreign policy and economic development and her place at the heart of India's Look East Policy. Both Prime Ministers acknowledged: India and Japan are Asia's two largest and oldest democracies with ancient cultural links and enduring goodwill between their people; both countries share convergent global interests, critical maritime inter-connection and growing international responsibilities, abiding commitment to peace and stability, international rule of law and open global trade regime; shared interests in security of maritime and cyber domains; shared objectives to preserve the integrity and inviolability of global commons; shared commitment to maritime security, freedom of navigation and over-flights, civil aviation safety, unimpeded lawful commerce, and peaceful settlement of disputes in accordance with international law; both economies have vast complementarities that create boundless opportunities for mutually beneficial economic partnership; relationship between the two countries draw strength and vitality from the exceptional consensus on the importance and potential of this relationship across the political spectrum, the business community and people in all walks of life.

Geopolitical developments, particularly China's aggressiveness, have made Japan sit up and review its self-imposed restrictions in the aftermath of World War II. It is obvious realisation has dawned that a benign posture only offers oneself as easy prey in this era of deceit, ambiguity and aggression. Hence, external factors have forced Japan to review its defence cooperation with other countries. Latest indication of this is Japan selling its state-of-the-art submarines to Australia. India and Japan have already been engaged in multi-sectoral ministerial and Cabinet-level dialogues in the spheres of defence, finance, economy, trade and energy. Dialogue between the National Security Advisors of the two countries was also initiated in 2014.



Signing of the 'Memorandum of Cooperation and Exchanges in the Field of Defence' during the current visit of Modi has been an important step that also institutionalised bilateral maritime exercises, Japan's continued participation in India-US Malabar series of exercises, and existing dialogue, mechanism and joint exercises between Indian and Japanese Coast Guards. Modi welcomed Japan's current policy on transfer of defence equipment and technology that has enormous potential for transfer and collaborative projects in defence equipment and technology between the two countries. Already, India and Japan have Joint Working Group on cooperation in US-2 amphibian aircraft and its technology. The two Prime Ministers directed respective officials to launch working-level consultations between the two countries with a view to promoting defence equipment and technology cooperation.

It is not much known that Japan had unofficially offered the amphibian plane to India during 1996 not as outright sale but as part of cooperation in disasters on high seas, rescue and against seaborne terrorism. In fact, the proposal was that such aircraft could be based in Andaman and Nicobar Islands and could be operated jointly by India and Japan. No costs other than sharing operating costs were involved. That India did not respond is no surprise as lack of strategic sense was never found wanting ever since independence other than occasional bright spots like the liberation of Bangladesh.

Japan is well advanced in the high-technology area, including defence technology latter optimised through the private industry, something that India needs to emulate. The FSX or F2 fighter bomber aircraft had been developed by Japan way back in 1996 based on F-16 airframe and was an improvement of the latter. Interestingly, the aircraft parts were developed in two different Japanese companies and assembled in the third one - all private companies. At one time complete communication equipment on board Chinese naval ships and vessels was Japanese. Significantly, Japan's Ministry of International Trade and Industry (MITI) is the most powerful amongst all ministries in Japan. Japan is also advanced in cyber warfare and production of complicated electronic chips, and Japan is also a participant in the US missile defence programme. The potential of Japan's military industrial complex is quite high. India is the acknowledged leader in software and India and Japanese space programmes have also been interacting and cooperating with each other for past several years.

The fact that aerospace and the electromagnetic domains are becoming increasingly important in asymmetric and conventional conflict highlights the need to increase focus of cooperation in this field as well. India-Japan cooperation has a high potential as both countries are also working towards concluding the Agreement for Cooperation in the Peaceful Uses of Nuclear Energy at an early date. Japan has freed six Indian space and defence-related entities from Japan's Foreign End User List. Prime Minister Modi's emphasis to reduce defence imports and progressing indigenisation including through absorbing foreign defence technology coupled with transfer of technology. Japan has already agreed to supply ShinMaywa US-2 Japanese amphibious aircraft designed for sea-air rescue operations to India. The US-2 is a 43-tonne amphibian equipped with four turboprop engines and is capable of lifting off from high seas up to 5 points on the scale. However, it will be modernised to suit Indian requirements in conjunction with Indian specialists and will be named US2i. India plans to buy 15 x US2i aircraft, first two of which will be assembled in Japan and balance in India with components supplied from Japan. India is also eyeing import of submarines that could be fitted with BrahMos missiles and Japan will likely respond to as and when a global tender is floated by India.

If the above contributes to "achhe din" for defence and security, that is not all. The India-Japan Investment Promotion Partnership is aimed at doubling Japan's FDI in India and the number of Japanese companies in India within five years further expanding bilateral trade relationship to the next stage; Japan to realise 3.5

trillion yen of public and private investment and financing including the Official Development Assistance (ODA) loan to India in five years to finance public-private projects like next-generation infrastructure, connectivity, transport systems, smart cities, rejuvenating Ganges and other rivers, manufacturing, clean energy, skill development, water security, food processing and agro industry, agricultural cold chain, and rural development. Japan pledged ODA loan of 50 billion yen to India for such public-private partnership infrastructure project in India; setting up of Electronics Industrial Parks and Japan Industrial Townships under prevailing policies like Special Economic Zone and National Investment and Manufacturing Zone; improve business environment in India, including through tax, administrative and financial regulations.

Special emphasis on Japan's cooperation for enhanced connectivity and development in Northeast India and linking the region to other economic corridors in India and to Southeast Asia; renewal of heritage cities including Varanasi and partnership city arrangement between Varanasi and Kyoto; completion of Joint Feasibility Study on High Speed Railway system on Ahmedabad-Mumbai route; review progress of ongoing flagship projects of India-Japan economic partnership like Western Dedicated Freight Corridor (DFC), Delhi-Mumbai Industrial Corridor (DMIC), Chennai-Bengaluru Industrial Corridor (CBIC). To strengthen energy cooperation through the India-Japan Energy Dialogue including in oil and gas, LNG and clean coal technology, agreement on commercial contract for manufacturing and supply of rare earth chlorides from India to Japan. Emphasis was also laid on cooperation in education, culture, sports, science and technology including cutting-edge fields like stem cell research, material science, cognitive science, applied mathematics, computing and information science, ocean technology and ocean observations, clean and renewable energy, water technology, climate change science, outer space and ICT.

Equal emphasis was laid for a closer and stronger strategic partnership (including mutual consultations for participation in regional and global forums) considered indispensable for a prosperous future for both countries in interest of advancing peace, stability and prosperity in Asia-Pacific, the Indian Ocean region and the world by engaging with foreign countries to address regional challenges, deepen regional cooperation and integration, strengthen regional economic and security forums and promote peaceful resolution of disputes.

Both condemned terrorism in all its forms and manifestations, irrespective of their perpetrators, origin and motivations, emplacing that the evolving character of terrorism called for stronger international partnership in combating terrorism, including through increased sharing of information and intelligence. Cooperation was also pledged for India to become a full member in the four international export control regimes: Nuclear Suppliers Group, Missile Technology Control Regime, Wassenaar Arrangement and Australia Group, with the aim of strengthening international non-proliferation efforts.

On balance, the Tokyo Declaration is very much harbinger of achhe din, which has the potential to catapult both India and Japan to their rightful place in the comity of nations ushering in peace and prosperity for the Indian and Japanese people. Prime Minister Shinzo Abe has already accepted Prime Minister Modi's invitation to visit India next year. So, 2015 should see further progress in the-Japan Special Strategic and Global Partnership including perhaps conclusion of the Agreement for Cooperation in the Peaceful Uses of Nuclear Energy between the two countries during 2015 visit.

Modi-Abe bonding: Neighbours' envy



[By Ranjeet Kumar]

rime Minister Narendra Modi has made a mark in his first foreign bilateral visit outside South Asia, signaling the significance he attached to India's relations with Japan. His mannerisms and his own characteristic style have been able to connect with not only ordinary people, from schoolchildren to businessmen, but also withthe Japanese political class and top leaders. Though the visit yielded results mainly in economic sector and has improved sentiments in diplomatic and strategic arena, the world was waiting for some concrete bigticket announcements in nuclear and defence sector, the absence of whichmust have disheartened a lot of strategic observers in India. Modi succeeded to convince the Japanese Government and the business community by promising to remove red tape and laying the red carpet for Japanese businessmen but he failed to erase Japanese domestic and governmental concerns on issues relatingto nuclear

and defence cooperation. In fact Modi had tried to assuage Japanese sentiments by stating a day before his departure for Tokyo on August 29that he will not rewrite the Nuclear Doctrine of India. Even the Japanese were not ready to sell the US-2 ShinMaywa amphibious plane disguised as civilian plane in view of its constitutional obligations. Even in Tokyo, Modi talked of the concept of "Vasudhaiva Kutumbkam" (world is one family) and in view of this the reliability of India's nuclear posture. Indian officials requested the Japanese to agree to ink the India-Japan nuclear cooperation agreement, using India-US civil nuclear cooperation agreement as template, but it failed to cut ice. However, Japan affirmed commitment to work together with India to become a full member in the four international export control regimes—Nuclear Suppliers Group, Missile Technology Control Regime, the Wassenaar Arrangement and Australia Group-with the aim of strengthening the international non-proliferation efforts.

But Modi's pronouncements during his interaction with the Japanese businessmen drew the attention of strategic community



world over, especially in China, Modi said in his speech, without naming China, thosewho follow the path of Buddha and have faith in "Vikas-waad" (Development-ism), they develop but, we see, those with ideas of 18th century engage in encroachments and enter seas (of others).

These comments are significant in view of tense relations between China and Japan and serious differences on the border and territorial issues between India and China. Both India and Japan accuse China of territorial encroachments. However the Chinese Government ignored Modi's comments and instead launched a frontal attack on Abe alleging that Abe was trying to divide India and China. But India was careful on issues relating to maritime disputes while drafting the joint Tokyo Declaration which made mention of maritime disputes in generic terms and did not refer to any particular area or country. Definitely India was mindful of Chinese President's forthcoming visit to India in the third week of September. China is India's next door powerful neighbour, which India cannot afford to antagonise especially when the Chinese themselves are eager to warm upto relations with India.

According to Dr C. Raja Mohan, strategic affairs analyst, Modi's visit to Japan helped consolidate three important parameters: First, on reviving the spiritual bonds, which connects with the masses; second, in the economic sector, which will go a long way in strengthening economic partnerships, and third, in the nuclear and defence sector. Though the nuclear agreement could not be signed but a lot of progress has been made and this will not keep hostage the bilateral relations. His visit has helped in re-energising the emotional bonds of the two countries and will provide a foundation for good defence cooperation. During the summit the two countries signed an MoU on defence cooperation and exchanges.

Recent amendment in Japan's policy on transfer of defence equipment and technology was welcomed by India, and both the Prime Ministers expressed the hope that this would usher in a new era of cooperation in defence equipment and technology. They recognised the enormous future potential for transfer and collaborative projects in defence equipment and technology between the two countries. Modi also asked the Japanese to take advantage of the liberalised FDI policy in defence sector, setting 49 per cent limit for the foreign companies in the joint ventures, and make India as the base for international exports based on Japanese technology. Officials of the two countries have been directed to launch working-level consultations between the two countries with a view to promoting defence equipment and technology cooperation.

Hence, the Tokyo Declaration described the Modi-Abe meeting as the dawn of a new era. Explaining this the noted China expert Srikanth Kondapallisaid, "The regional context and the personal ties between Narendra Modi and Shinzo Abe to a large extent contributed to the dawn of a new era in bilateral relations. Modi's visit will go down in history for opening up a Special Partnership chapter in bilateral relations." Naturally the deepening of relations, which was signified byraising the level of global and strategic partnership to special global and strategic partnership has deeper connotations, which will add odour to the evolving partnerships of the two Asian giants and will be a cause of concern for China.

In view of China's aggressive behaviour in the East and South China Sea which raises hackles in the strategic establishments of both Japan and India, the coming together of forces to jointly protect the maritime interests of both countries in East and South China Sea is significant, but the Tokyo Declaration was not assertive enough to warn the Chinese to desist from militarism in the maritime area. Hence the declaration by India to invite Japan also to participate on a regular basis in the Indo-American bilateral exercises will serve as a red flag to the Chinese.

Without naming any country and the maritime arena (obviously China and the East and South China Sea) the Modi-Abe statement referred to shared commitment to maritime security, freedom of navigation in and over-

flight above, civil aviation safety, unimpeded lawful commerce, and peaceful settlement of disputes in accordance with international law. Since more than half of India's maritime commerce is conducted via the South China Sea, India has sincere interests in safeguarding its maritime trade and ensure the right to freedom of navigation, which can be better promoted by seeking cooperation from a regional power like Japan.

No wonder that the state-run Global Times reacted sternly to Modi's casual comments and the indirect reference to China in the joint statement saying, if Japan attempted to form a united front centred on India, it will be a crazy fantasy generated by Tokyo's anxiety of facing a rising China.

Observers point out that the Tokyo-Beijingtension on Senkaku (Diayou) islandshas led to a lot of anti-China atmosphere in Japan and anti-Japanese sentiments in China making it little uncomfortable for the Japanese businessmento go to or work in China. Hence they want to shift their base in the long run from China to India. But it all depends on the kind of congenial business environment India provides to the Japanese. To allay Japanese fears Modi did try to con-



vince by promising to lay the red carpet and removing all red tapes. Besides a special track will be created in the Prime Minister's office to facilitate Japanese business in India. Indeed the Japanese feared the Indian red tape so much that the Japaneseinvestment was only \$1.35 billion last year in India, which is much lower than the Chinese. In fact, the two-way trade between India and Japan last year was only around\$12 billion, whereas India-China trade was\$60 billion and the China-Japan trade was over \$312 billion in 2013.

A strong foundation for a strategic partnership can only be laid on the strong economic exchanges and partnership. If India is able to provide opportunities and climate to the Japanese in the near future the Japanese will feel encouraged to assist India in the defence sector also. Since much of the India-Japanese trade and commerce will be conducted via the South China Sea, the two countries would need to strengthen maritime partnership also to give meaning to the special strategic and global partnership that was especially mentioned in the Tokyo Declaration. 52

India Japan defence cooperation: Beginning of an era



[By Ranjeet Kumar]

fter the summit meeting on September 1, 2014, between Prime Minister Shinzo Abe and Prime Minister Narendra Modi, India and Japan will witness an enhanced and new era of cooperation between the two countries in defence and security arena, for which the way has been cleared by the Japanese decision to lift the ban on six Indian defenceentities including the Hindustan Aeronautics Limitedand the decision toaccelerate talks on US-2 amphibious plane transfer to the Indian Navy. In fact India will be setting a new template for defence cooperation with Japan, which other strategic partners of Japan would also like to emulate.

Both countries decided to upgrade and strengthen their defence cooperation and directed the officials of the two governments to launch consultations to promote military equipment cooperation and speed up discussions on modalities for the supply and transfer of technology of the US-2 amphibious plane. A joint statement said, "Both sides directed the Joint Working Group to accelerate progress in the discussions and preparations for a road map for the development of the Indian aircraft industry through US-2 amphibian aircraft cooperation including the transfer of the aircraft and its technology to India."

If the US-2 deal materialises India will perhaps be first country since World War II to acquire a military system from Japan. To facilitate this Prime Minister Abe had only a few months ago decided to dismantle the ban on weapons exports that has dissuaded his country from entering into world arms market in spite of possessing most advanced and competitive defence technology. The US-2 (ShinMaywa industries) amphibious aircraft deal will be worth \$1.65 billion, which includes off-the-shelf purchase and technology transfer for licence manufacture in India. According to sources, India is negotiating for at least 15 planes for direct saleat the cost of \$110 million each.

The US-2 plane, likely to bebased at the Andaman and Nicobar



MILITARY Feature



Islands can fly 4.500 km which will give a reach up to South East Asian coastal areas and can be employed in support missions. This will step up the profile of the Indian Navy across the Indian Oceanwhich will help in countering rival China.

The US-2 will prove to be a symbolic launching of defence cooperation between the two countries. To enable deeper cooperation the two sides signed a memorandum of cooperation and exchanges in the field of defence during Prime Minister Modi's five-day visit. "We intend to give a new thrust and direction to our defence cooperation, including collaboration in defence technology and equipment, given our shared interest in peace and stability and maritime security. We have also decided to expand our cooperation in advanced technology, science and technology, people-to-people exchanges, educational exchanges, etc," Modi said at the joint press briefing with his Japanese counterpart.

The Tokyo Declaration said, "The two Prime Ministers expressed hope that this would usher in a new era of cooperation in defence equipment and technology. They recognised the enormous future potential for transfer and collaborative projects in defence equipment and technology between the two countries."

The foundation for defence and security cooperation was laid in 2006 when the then Defence Minister Pranab Mukherjee had visited Japan and issued a joint statementwith Fukushiro Nukaga, Japan's Minister of State for Defence, whoemphasised on deepening the dialogue and cooperation" in security and defence fields and a "deep interest in tackling regional and global security challenges". In 2001, the bilateral Comprehensive Security Dialogue was initiated. The two countries further institutionalised the bilateral security cooperation by issuing the Joint Declaration on Security Cooperation between Japan and India in October, 2008 and commencement of 2+2 bilateral dialogue involving the Defence and Foreign Ministries. Under this the following elements were included: First, information exchange and policy coordination on regional affairs in the Asia-Pacific region and on long-term strategic and global issues. Second, Bilateral cooperation within multilateral frameworks in Asia, in particular the East Asia Summit, ASEAN Regional Forum and ReCAAP processes. Third, Defence dialogue and cooperation within the framework of the Joint Statement signed in May 2006 between the two Defenceand Foreign Ministries. Fourth, cooperation between coast guards.

These dialogues continued on a regular basis and the latest decision to upgrade the defence cooperation is a result of the ModiAbe summitwhichwill see a new era of cooperation in defence sector between the two Asian giants. Prime Minister Modi told the Japanese businessmen to take advantage of India's liberalised FDI regime in defence sector.

The cooperation and joint programme between the armed forcesof two countries will also become a regular feature. As the two countries decided to include Japan in the bilateral India-US Malabar maritime exercises on regular annual basis, the two Prime Ministers alsowelcomed the dialogue between the Director General of Indian Coast Guard and the Commandant of Japan Coast Guard and the joint exercise between Indian and Japanese Coast Guards conducted off the coast of Kochi in January 2014. Both sides expressed their desire to further promote bilateral and multilateral cooperation on maritime issues and decided to hold the next bilateral dialogue in Tokyo and joint exercise off the coast of Haneda between Indian and Japanese Coast Guards in October 2014.

Though the Japanese were in the forefront of imposing sanctions on India after India conducted nuclear tests in May 1998, therole of the Indian Navy in November 1999 when they rescued the Japanese Alexandra Rainbow ship from the sea pirates impressed the Japanese decision-makers so much that they decided to take a U-turn and initiated the talks with India in defence and security arena. These talks have now matured to the level of the Tokyo Declaration which expresses the resolve to strengthen defence and security cooperation. Perhaps the ongoing spat with China over Senkaku (Diayou) islands in the East China Seahas encouraged Japan to find a new partner in Asia in defence arena to bolster its maritime security.

The resolve to enter into a defence and security cooperation with India will allow the Japanese defence giants like Mitsubishi Heavy Industries Limited and Kawasaki Heavy Industries Limited to enter in a big way in Indian defence sector. These companies alreadysupply important components to US and British aviation and armament companies. Since India is a leading market for defence hardware, the Japanese Government would not like to be absent from the Indian market, which offers huge scope of over \$100 billion in the next decade. India needs cutting-edgetechnology in defence electronics and the Japanese electronics companies are well suited to meet the needs of the country's armed forces. Japan seems to have shed its post-World War II inhibitions and is ready to work withIndia as areliable partner in defence sector. SP



Australia uranium wins **Indian hearts**



[By Ranjeet Kumar]

ustralia has followed on the footsteps of the United States, France, UK, Russia, South Korea, Canada, etc in entering into nuclear cooperation agreements with India. It was in late 2008, that the United States had opened the door for India in the comity of powerful nuclear nations by signing a historic and pathbreaking civil nuclear cooperation agreement in the face of stiff international opposition. Since then India has been able to win the confidence of other powerful nuclear nations like France, Canada, UK, etc. Russia has always been apartner in India's civil nuclear programme. However, the latest step by Australia, after seven years of intense domestic debate and last two years of bilateral negotiations with India, will increase India's profile in international nuclear community as a responsible nuclear power without signing the Nuclear Non-Proliferation Treaty (NPT) and the Comprehensive Test Ban Treaty (CTBT).

The Prime Minister of Australia Tony Abbott, who became the first state guest outside the SAARC region, on bilateral visit to New Delhi, signed a historic Civil Nuclear Cooperation Agreement with India on September 5, 2014. This deal will facilitate the sale of uranium fuel to India, without which India's 20 nuclear power plants are compelled to run on partial capacity. Australia is endowed with one-third of world's uranium resources and exports 7,000 tonnes of it annually. But India was out of bounds for Australian uranium, because India continues to be a non-signatory to the NPT. Now, probably, a resurgent India has encouraged Australia to enter into a nuclear deal and sanction the supply of uranium to India. After the deal was inked between the head of the Atomic Energy Commission R.K. Sinha and Australian High Commissioner Patrick Suckling,



Prime Minister Abbott commented, "Today, we signed a significant Civil Nuclear Cooperation Agreement because Australia trusts India to do the right thing in this area, just as it has done the right thing in every area since independence almost 70 years ago."

Praising India's credentials as nuclear power state, Abbott said, "Hardly any country in this planet has been a model citizen like India. That is why we are happy to trust India with our uranium in the months and years." Reciprocating the sentiments Prime Minister Narendra Modi described the agreement as a "historic milestone" in bilateral ties. He said, "It is a reflection of a new level of mutual trust and confidence in our relations and will open a new chapter in our bilateral cooperation. It will support India's efforts to fuel its growth with clean energy and minimise the carbon footprint of its growth."

Besides nuclear cooperation, anotherhighlight of the Abbott-Modi meeting was thejoint declaration on defence and security cooperation, in which they committed to strengthen the defence

and security partnership and welcomed growing cooperation in defence, counter-terrorism, cyber policy, transnational crime, disarmament and nonproliferation, humanitarian assistance, disaster management and peacekeeping. They called for deepening the framework of defence and security cooperation to guide the bilateral engagement in these and other priority areas.

Thetwo leaders cleared the plans of the two navies to have bilateral annualmaritime exercises to be held early next year, for which preparations have already commenced. Abbott and Modi noted the importance of maritime dimension and welcomed discussions on maritime security in the ongoing disarmament and non-proliferation official leveldialogue.

Thus Australia will be another prominent US ally, with which India has signed a nuclear cooperation agreement and agreed for defence and security cooperation. Along with US, Australia was in the forefront of imposing sanctions on India after the May 1998 Pokhran nuclear explosions, when the Australian Government even decided to withdraw its Defence Attaché from New Delhi. Thus, from a reluctant to strong partner, Australia will now enter into full-fledged defence and security cooperation with India. Being a leading Indian Ocean maritime power India needed such a friend in the face of increasing Chinese naval forays in the Indian Ocean. It was Australia which initially proposed a quadrilateral alliance between India, US, Japan and Australia in 2007 when all the four countries along

with Singapore exercised for the first time in the Bay of Bengal and later all the four met in Tokyo for consultations. But the strong Chinese demarche forced Australia to backtrack and the idea has since been allowed to die. Australia cannot afford to antagonise China and India also cannot appear to be ganging up against China with its rivals. However, the Abbott-Modi Joint Declaration is an indication that the two countries will be a partner injointly safeguarding their maritime interests in the Indian Ocean, which touches the shores of both the countries.

Hence the two Prime Ministers highlighted the concrete steps towards more effective practical cooperation in the Indian Ocean Regional Association (IORA) and noted that India and Australia would work closely to further strengthen the organisation in thepriority areas of maritime security and piracy, fisheries management; disaster risk reduction; tourism and cultural exchanges, academic and S&T cooperation, and trade and investment facilitation. Both countries agreed to take this collaboration to a higher level at the next Council of Ministers meeting in Perth in October 2014.

There was a political divide in Australia for entering into bilateral defence and nuclear cooperation agreements of such strategic nature. The Australian Government under a liberal Prime Minister John Howard had declared its intention to sell uranium to India but was overturned by the next Labour Party-led by Kevin Rudd, which has traditionally been opposed to supplying nuclear fuel to countries which have not signed the NPT and CTBT. Later, in 2011 the next Prime Minister Julia Gillard revised the Labour Party ruling not to sell uranium to India. Julia Gillard started nuclear deal negotiations with India which took more than two years to conclude.

Unlike US, France, Korea and Russia who are interested in selling their nuclear reactors to India, Australia will become a reliable



partner in running these reactors through its uranium. Though India would not be heavily dependent on Australian uranium, as India has already started getting supplies from Kazakhstan, with whom a nuclear cooperation agreement was signed in 2012. However, a nuclear deal with Australia has special significance, as it will give more options for India to import the nuclear fuel at competitive rates and with lesser preconditions.

Significantly, Australia has also decided to extend support to India to be able to sit on the high tables of the restricted nuclear clubs of the world—the Nuclear Suppliers Group, the Wassenaar Arrangement, the Australia Group and the Missile Technology Control Regime. Australian support in these exclusive nuclear clubs will be extremely vital for India. Prime Minister Abbott also reiterated his government's support to India as a Permanent Member of the United Nations Security Council. 52

No revision of the nuclear doctrine

[By Ranjeet Kumar]

ompulsions of domestic politics encouraged the drafters of the election manifesto of the Bharatiya Janata Party (BJP) in the last parliamentary elections to promise to revise the nuclear doctrine which in fact was enunciated by the BJP-led NDA Government headed by Atal Behari Vajpayee in 1998 after the Pokhran nuclear tests. However, realpolitik forced the BJP Prime Minister Narendra Modi to take a U-turn and declare its adherence to the nuclear doctrine promulgated in 1998, before

his departure for Tokyo for a historic summit with Japan, which is extremely sensitive on nuclear-related issues. Since India wanted a nuclear cooperation agreement with Japan Prime Minister Modi chose the Japanese media to clarify India's stand on nuclear doctrine.

After the Pokhran nuclear tests India had declared a no first-use policy and announced a nuclear doctrine based on credible nuclear deterrence, which means that the country will maintain an effective arsenal which will give confidence in strong retaliation if attacked by a nuclear bomb by the enemy. For this India declared that the country's armed forces will have a second strike attack capabilityfrom land, air or sea. Though the country has acquired means of nuclear delivery from ground and air, the capability to launch a nuclear missile from the sea is yet to be achieved, though defence authorities claim that they have advanced a lot in achieving this capability.

The draft of the doctrine asserted that nuclear weapons were mainly for deterrence and if need arises India will pursue a policy of retaliation only. The doctrine also asserted that India will not be the first to initiate a nuclear first strike, but will respond with punitive retaliation should deterrence fail. The BJP election manifesto played a different tune and said that it will be revised and updated. It specifically said, "Study in detail India's nuclear doctrine, and revise and update it to make it relevant to the challenges of current times and willmaintain a credible minimum deterrence that is in tune with changing geostatic realities."

However, Prime Minister Modi made it a point to clarify to the Japanese media, "India's nuclear doctrine was adopted during the previous NDA Government and has in general governed our nuclear weapons posture since then. While every government naturally takes into account the latest assessment of strategic scenarios and makes adjustments as necessary, there is a tradition of national consensus and continuity on such issues. I can tell you that currently we are not taking any initiative for a review of our nuclear doctrine."

When specifically asked on any possibility of India acceding to the Nuclear Non-Proliferation Treaty (NPT) or the Comprehensive Test Ban Treaty (CTBT), Modi replied, "India's position on the NPT and the CTBT is well known and needs no reiteration. There is no contradiction in our mind between being a nuclear weapon state and contributing actively to global nuclear disarmament and nonproliferation. India remains strongly committed to universal, nondiscriminatory, global nuclear disarmament. Our track record of



non-proliferation is impeccable. We will continue to contribute to the strengthening of the global non-proliferation efforts. India's membership of the four international export control regimes will be conducive to this. As to the CTBT, we are committed to maintaining a unilateral and voluntary moratorium on nuclear explosive testing."

Observers point out that India has already committed to the leading nuclear power countries with whom it has signed civil nuclear cooperation treaties on maintaining its no first-use nuclear doctrine and moratorium on all nuclear tests. Observers are of the opinion that India may

not have signed NPT or CTBT but in letter and spirit is adhering to its provisions. India has shown its commitment to non-proliferation and its record as non-proliferator has been internationally accepted as credible. On the basis of these commitments India has inked nuclear treaties with countries like the United States, UK, France, Russia, etc.

India has moved too far on the road to non-proliferation commitments and at this stageit can be reversed at the cost of its national interests. On the basis of these commitments India had entered into power reactor agreements with France and the United States. France is setting up six nuclear power plants in Jaitapur (Maharashtra) and commercial negotiations with the Westinghouse toestablish two nuclear reactors are underway. If legalobstacles like the Nuclear Liability Law areclarified to the full satisfaction of the participating countries, India's nuclear power programme can run full stream in the coming years. If all the hurdles are cleared and no ambiguity remains among the nuclear powers of the world, the country can achieve the target of generating 60,000 MW nuclear power by the end of 2030, which in all will entail an investment of more than \$300 billion.

India needs energy from various sources to augment its power supply to its booming economy and if the government creates any confusion regarding its nuclear postures, this may result in backlash among nuclear powers who may renege on all nuclear cooperation agreements with India and may withdraw support to Indian nuclear power programme.

Observers also point out that only on the basis of country's credible nuclear posture, the leading nuclear powers can whole heartedly push for India's case in four leading nuclear clubs of the world viz., the Nuclear Suppliers Group, the Wassenaar Arrangement, the Australia Group and the Missile Technology ControlRegime.

Countries like China have been opposing tooth and nail India's entry into these clubs and they should not be given any excuse to veto India's entry to these high tables of nuclear czars. India has achieved the desired level of nuclear deterrence and going beyond this by declaring to revise the nuclear doctrine would harm India's national interest. Prime Minister Modi has thus taken a pragmatic stand by once again committing to the world community through the Japanese media that there will not be any dilution of India's commitmentstovarious nuclear agreements. SP





Sweden has no cap on FDI in defence

Lars-Olof Lindgren, Chairman Saab India Technologies Pvt Ltd

SP's M.A.I. (SP's): What do you think about the 49 per cent FDI limit increased from 26 per cent recently?

Lars-Olof Lindgren (Lindgren): It is an important step towards the goal of making India self-reliant in defense production. An even higher ceiling for FDI would have been better since that would have given stronger incentives to companies to bring in new technologies. In many countries, including in Sweden, there is no limit for FDI in the defence sector.

Having said that, what is likely to change with a 49 per cent stake is that global defence companies and their shareholders will be looking at investing in the country as a business investment decision rather than simply a decision to facilitate participation in a contract.

A 26 per cent stake in a company invariably carried a number of business risks in a sector such as defence where proprietorial information, research and development and sensitive technology are closely guarded. Defence companies seek the assurance of being the largest shareholders in order to ensure that their interests and technology are appropriate.

Further, companies need to be assured of long-term business investments in a sector where there is a single customer and orders are few and far between. Being a minority partner in companies where other domestic partners may not have the investment capacity or have other priorities would unnecessarily create situations where foreign partners are trapped in under-funded companies.

SP's: What all can your company offer to our country with this change now versus the past limit?

Lindgren: For us, India is more than a market. The focus is not simply on winning bids but on building business in partnership with reliable Indian partners across the entire hierarchy of manufacturers, all the way from strategic partners to sub-component suppliers. Saab is looking at the Indian Industry as their potential partner in product development for the world market. We believe that the Indian industry has the necessary capability and can absorb state-of-the-art technology for manufacturing world-class products.

That said, we do not see any significant change in the way we collaborate with Indian companies at this juncture.

SP's: As on date can you brief us about your joint activities with Indian industry? And the business arrangements involved in these joint activities?

Lindgren: We work closely with partners such as BEL, HAL and Pipavav. Saab has a partnership with Indianeye Security Pvt Ltd for

supplying Agile Tactical Engagement Simulation (ATES) equipment to Indian armed forces, paramilitary, special forces and police.

Saab and Bharat Forge Limited have signed an agreement to work together on the Indian Army Air Defence projects VSHORAD. Also, Saab and Ashok Leyland have entered into an agreement to work together as partner for the Indian Army Air Defence project for the short-range surface-to-air missile (SRSAM) based on the Saab BAMSE system. Ashok Leyland will deliver high mobility vehicles for the BAMSE SRSAM solution.

Saab is an equity investor in Pipavav Offshore and Defence Engineering Ltd (Pipavav). Further, Saab and Pipavav have jointly formed the Combat System Engineering Group (CSEG) in India.

In 2012, Saab, in collaboration with Elcome Marine Services, implemented the National Automatic Identification System on the Indian coastline for India's Directorate General of Lighthouses and Lightships (DGLL). The project involved set up of sensors and equipment to help secure the entire Indian coastline.

Saab is also working with many suppliers of machinery and composite parts in India, including CIM Tools, Tata Advanced Material Limited and Aegus (former QUEST Global Manufacturing). These companies play a very valuable role in helping Saab develop, industrialise and manufacture complex airframe assemblies for Airbus and Boeing. Our joint venture with Aegus manufactures and supplies assemblies for the global commercial aero structures market.

Saab India Technologies has set up the Saab India Technology Centre, a Research and Development Centre, in partnership with Tech Mahindra in Hyderabad. This centre forms an important bridge for the transfer of the latest in defence technologies between India and Sweden.

These alliances will go a long way in helping Saab fulfil its vision – of becoming a true and genuine partner to India's defence industry. We are committed to true transfer of technology and investing in the future of Indian defence industry and here to stay for the long haul to build an indigenous defence industry in India.

SP's: Why there seems to be a demand for 51 per cent FDI limit still? Is that justified?

Lindgren: Yes, a higher ceiling for FDI would give stronger incentives to companies to bring in new technology. All companies with proprietorial technology in any domain seek to retain control over access to the technology.

Continued on page 16...



A welcome move

Phil Shaw, Chief Executive of Lockheed Martin India.

SP's M.A.I. (SP's): What do you think about the 49 per cent FDI limit increased from 26 per cent recently?

Phil Shaw (Shaw): Lockheed Martin welcomes the move by the new Indian Government to increase foreign direct investment in the defence sector and looks forward to working with Indian customers to help meet their requirements.

SP's: What all can your company offer to our country with this change now versus the past limit?

Shaw: Lockheed Martin reviews partnerships and joint ventures based on the business case. The corporation will continue to review potential partnerships in the same manner and agreements regarding investment will be made accordingly.

SP's: Can you brief us about your joint activities with Indian industry? And the business arrangements involved in these joint activities?

Shaw: Lockheed Martin has a joint venture in India—Tata Lockheed

Martin Aerostructures—in which we hold a 26 per cent share. Local employees manufacture airframe components for C-130 customers across the world.

SIM Industries, a Lockheed Martin company, has a joint venture with Fly Wings Aviation called Flight Simulators Techniques Centre (FSTC).FSTC is a world-class pilot training facility in Gurgaon, Haryana. It is the first pilot training centre in North India to meet aviation training requirements. The centre has been set up with a vision to reduce the burden of airlines towards travel and hotel costs and also ensure immediate availability of pilots for operation.

SP's: Why does there seem to be a demand for 51 per cent FDI limit still? Is that justified?

Shaw: We welcome the Indian Government's decision to increase foreign direct investment in the defence sector. It would be inappropriate for us to comment on statements from others as this is a matter for the Indian Government to which your question should be directed.

... "Saab India perspective" continued from page 15

India has many lessons from its own history of economic reforms. Almost all the multinational companies entering India – as automotive industry from Japan or Korea or American beverage companies or Japanese consumer electronics companies – came into India in a full-fledged fashion only after they were able to set up fully-owned subsidiaries. Indeed, the experience of joint ventures on the other hand has been quite troubled and needs to be kept in mind.

India has benefited clearly from that change in the regime. It is quite clear that all technology dependent companies will shy away from any situation where their technology or business process is in danger of being outside their control.

In many countries, including in Sweden, there is no limit for FDI in the defence sector. As a first step, an increase to a minimum threshold of 51 per cent is urgently called for.



LT GENERAL P.C. KATOCH (RETD)



Ironically, among all the big talk of international cooperation for countering terrorism, at best one can expect sharing of intelligence but that too if it suits the national interest of the intelligence provider. The bottomline therefore is that this is our fight and we have to fight it ourselves.

More terror

n a recently released video, Al Qaeda leader Ayman al-Zawahiri has announced the formation of an Indian branch of his militant group that, he said, would spread Islamic rule and "raise the flag of jihad" across the subcontinent. The new group, he said, "is the fruit of a blessed effort of more than two years to gather the Mujahideen in the Indian subcontinent into a single entity."

The fact is that Zawahiri who had thought his cadres helping the rebels in Syria and Libya would buy him favours of the US and EU has actually been given the drubbing of his life by Al Qaeda's offshoot Islamic State of Iraq and Syria (ISIS) that wants to consume its own mother. So with the ISIS pushing his face into the gutter, Zawahiri declares he is turning focus to the subcontinent. His claim of gathering the Mujahideen in India and proclamation of support to Afghan Taliban is a good effort to score brownie points. Al Qaeda's support to Afghan Taliban is nothing new. As far as mustering the Mujahideen in the subcontinent is concerned, Al Qaeda's godmother Pakistan has been at it since ages, even since Al Qaeda protégé Musharraf as a young officer was training terrorists in the Chitagong Hill Tracts of what earlier was East Pakistan. The constant of course has been the unstinted support of Pakistan to Al Qaeda; sheltering Osama bn Laden, providing safe havens and support to the Haqqani network. Zawahiri's video messaged in the instant case too is assessed to have been broadcast somewhere along the Pakistan-Afghanistan border, which may well have been under the tutelage of the Haqqanis and Inter-Service Intelligence (ISI).

In conjunction terrorising Jammu and Kashmir (J&K), Pakistan inducted armed modules pan India; in the states of J&K, Assam, West Bengal, Bihar, Uttar Pradesh, Delhi, Kota/Ajmer region of Rajasthan, Gujarat, Maharashtra, Andhra Pradesh, Kerala and that Students Islamic Movement of India (SIMI) had already started deputing 'volunteers' to Pakistan for training along with the Mujahideen, Taliban and Al Qaeda cadres, as penned by a former joint director of Intelligence Bureau in 2005.

So those who hide behind the facade that Indian Muslims will not get lured by ISIS are adopting the ostrich approach. It is a process that has been orchestrated over decades. We have the largest youth bulge in the world but we also have the largest number of illegal weapons circulating in the country and being central to the Golden Triangle and the Golden Cres-

cent are slush with narcotics. Not that we should discount the threat from Al Qaeda whose footprints were reported by the media citing the Intelligence Bureau and the Research and Anlaysis Wing sources over five years back. Th fact the rise of the Kerala headquartered Popular Front of India (PFI) was attributed to the joint effort of Al Qaeda and LeT.

Then is the nexus of the Al Qaeda and the Liberation Tigers of Tamil Eelam (LTTE) goes back many years and poses a threat to South India in conjunction Al Qaeda and LeT investing into neighbouring Maldives. That the Indian Maoists were trained by LTTE in use of mines, IEDs and explosives at the behest of Pakistan's ISI and LeT representatives attending Maoists meetings are well known, as is the use of Nepal, Bangladesh and Sri Lankan soil for ISI activities. Concurrent to all this, is the startling news of more than 300 Indian youth having been recruited by Pakistanbased Tehreek-e-Taliban (TTP) which has joined hands with ISIS. This comes after the news that five educated youth from Maharashtra had joined the ISIS and one of them has been killed in fighting recently.

The National Investigation Agency (NIA) report about more than 300 Indian youth joining ISIS says that the youth are being recruited from Kerala, Tamil Nadu, Maharashtra and Karnataka, and that they are being trained in Pakistan, Iraq and Syria to be Fidayeen. Jmaat-e-Ahrar is the latest breakaway group from the TTP that has openly proclaimed allegiance to the ISIS. Not that any formal proclamation was needed when some 5,000 Pakistan Taliban had been fighting alongside in Syria and Iraq past several months, as revealed by the Syrian Ambassador to India.

The ISIS threat too cannot be ignored either as terrorist organisations are getting more and more networked worldwide. We cannot discount global linkages of international terrorist organisations and the focus to destabilise India by forces that will remain inimical to us always. The Indian Mujahideen are the creation of the ISI of Pakistan but can be expected to do the bidding of both Al Qaeda and the ISIS. Ironically, among all the big talk of international cooperation for countering terrorism, at best one can expect sharing of intelligence but that too if it suits the national interest of the intelligence provider. The bottomline therefore is that this is our fight and we have to fight it ourselves. That is why Ashley Telis of the Carnegie Foundation had said some years back that "India getting subjected to terrorism, suits many". 52



The rescue and relief operation by Indian Army

Military's contribution to Jammu & Kashmir flood relief

[By Lt General P.C. Katoch (Retd)]

he flood situation in Jammu and Kashmir (J&K) has been declared a "national-level disaster" by Prime Minister Narendra Modi and sanctioned ₹1,000 crore for flood relief. Financial aid from other states, organisations and individuals are pouring in. The Indian armed forces had swung into immediate relief and rescue, even as the Army Chief announced that the "army will not return to barracks till the last man is brought to safety", while a lady tweeted on the social media "God could not be everywhere, so he sent the Indian Army." Similar sentiments had flooded the media during the Uttrakhand disaster. As this article is being sent to print, more than 1,50,000 persons have been evacuated to safety from inundated areas across the state by the armed forces.

The unexpected collision of moist warm monsoon winds and cool dry western disturbance over Jammu and Kashmir on September 3 led to the devastating rain coupled with cloud bursts across the region. The India Meteorological Department (IMD) claims it had predicted this situation including from data collected from 22 automatic weather stations installed across the State. The automatic weather stations project was started after the 2005 snow tsunami, which led to loss of lives and destroyed properties worth crores. In recent years, weather scientists are taking help of satellite imagery, but loss of lives and property is beyond the scope of any modern technology.

Heavy rain has caused massive waterlogging in Jammu and

Kashmir. Panic gripped the city as water entered many low-lying residential areas in uptown Srinagar, submerging many houses. Residents of the city woke up on September 4 to inundated roads and streets, waterlogged lanes and bylanes leading to posh residential areas and suburbs and overflowing flood channels. But then River Jhelum broke its banks, as did the Chenab, Tawi and some other rivers, Basantarand other overflowing nullahs. The embankments of the Jhelum were breached at many places due to rise in the water level, submerging areas like Badamibagh, Sonawar, Rajbagh, Kursu, Natipora, Nowgam and Old Barzulla.

As about one-third of Srinagar went underwater, some areas still having 20 feet of water on September 9, heavy damages to infrastructure in Samba, Kathua, Rajouri, Poonch, Ramban, Udhampur, Doda and Reasi districts. People of these districts too were rendered homeless as many houses have collapsed. The National Hydroelectric Power Corporation issued a warning to the public of Doda and Kishtwar districts not to move close to the Chenab banks as they were going to open gates of the reservoir of the Dulhasti power station. A part of the Jammu-Srrinagar Highway was washed away cutting off communications and the Vaisno Devi Yatra was suspended (now resumed). Forward posts, especially closer to rivulets were either inundated or left with slush on dirt tracks compounding the problems of patrolling, while some portions of the border fence too has been damaged or washed away.

The state's worst flooding in 60 years has submerged villages, ruined crops, snapped communication links and left

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thousands homeless. In Srinagar, initially the low-lying areas, including Barzulla, Bemina, Bhagat, Pir Bagh, Natipora, Chanapora, Mehjoor Nagar, Lasjan and Civil Lines were most affected but then incessant rain and the raging Jhelum inundated most of Srinagar including areas like Rajbagh and the Army Cantonment. Today, Srinagar and surrounding areas represent a huge lake. Waterlogging has hit the important installations like the civil secretariat and Jammu and Kashmir High Court. Even hospitals like the Children's hospital in Sonawar and Srinagar's sole government maternity hospital Lal Ded have been badly affected by waterlogging. To say that the state administration was ill prepared would be an understatement, and the National Disaster Relief Force (NDRF) teams have very limited capability as was also witnessed during the Uttarakhand disaster. Tragically, some 175 lives have been lost including 27 people killed due to landslide in remote Pancheri village of Udhampur district. The armed forces have deployed

135 ground columns (over 20,000 soldiers), 65 medical teams, 15 engineer task forces, 50 planes and helicopters (both Army and Air Force) and some 65 boats. The Army has pulled out Cheetah helicopters even from the Siachen area to rescue. Navy's marine commandos are also assisting the rescue. Some 10,000 blankets, 150 tonnes of rations and four lakh litres of milk have been flown in, and this stream of relief will continue till required. The rescue operation is likely to be a long one with some four lakh people still awaiting rescue from inundated homes and very limited dry spots where the helicopters can land. Military helicopters have been trying to pluck some people precariously perched from atop rooftops. While BSNL has provided 20 VSATs, army is helping in their installation to restore communications. There has been complete breakdown of telecom services. Power supply remains disrupted across the state with hospitals bearing the brunt of the crisis. In Jammu, landslides have damaged roads, bridges, buildings and crops. Vehicular traffic is at standstill on the Jammu-Pathankot highway. Katra trains have been halted and Haj flights scheduled up to September 12 have been postponed.



Mission Sahayata by Indian Army in Jammu and Kashmir



While Chief Minister Omar Abdullah's disdain to the military is well known, ultimately it is Covernment of India and the Indian armed forces which are staking their lives to help the Kashmiris

Part of the alienation of the J&K population has been because they were kept as a separate entity or in other

words not given a chance to integrate with the country primarily because of the arbitrary imposition of Article 370 by Nehru, without even taking the then Home Minister Sardar Patel into confidence despite the fact that J&K was an integral part of India and very much the forte of the Home Minister. At that time, Nehru was categorical in stating that Article 370 was only a temporary measure but for some sinister reason he continued with it, followed by his progeny. This was one of the primary reasons for a feeling of alienation of Kashmiris, especially in youth that kept the separatist movement in the state alive. This notwithstanding, current help pouring in from all over India in this hour of calamity should provide a balm to the alienation. Prime Minister Narendra Modi has publicly assured the population of J&K that every possible help will be provided. This was reinforced by the Home Minister by say-

ing that there will be no dearth of finances and resources in rendering aid. Among the various financial donations pan India, groups have come up at many places to collect relief material, establish help linesand trace relatives and friends through the social media of doctors. A computer professional has formed a group and established a website ikfloodrelief.org to collect and coordinate relief efforts for the ravaged state. There are already 10,000 page views and the Twitter feed on the website has come in handy for those who are scouring for information about their loved ones stranded in the J&K floods. Another Delhibased organisation is volunteering with the collection and transportation of relief material to J&K, akin to an airline company. Volunteers have also coordinating medicine supply to the flood affected through pharmaceutical companies who have agreed to help with medicines.

Interestingly at a time when the entire focus of the nation has been on rescue and relief to provide succour to the affected, the call by Chief Minister Omar Abdullah to the Prime Minister not to postpone the upcoming assembly elections in J&K is rather strange and indicates his focus is limited to how to cash upon sympathy votes because of the rescue, relief and rehabilitation - well knowing that considering the damage including the manner in which individual houses and properties have been ravaged, rehabilitation is going to be a long-drawn process. If he really bothered about the population, he should have stopped the colonial practice of moving the winter capital of the state to warmer Jammu, something his father and grandfather revelled in, leaving the Kashmir Valley to the cold winter sans adequate electricity and water frozen in pipes. In fact considering the calamity and misery of the people because of the current floods, coming winter is the time to stop the colonial practice of shifting the capital to Jammu during winter. It is just the gesture actually for him because even while staying on in Srinagar not much would change in the luxurious lifestyle of the Chief Minister. While Omar Abdullah's disdain to the military is well known, at this time of serious calamity questions are being asked about completeabsence of anti India protestors and stone pelters; demanders of independence; slammers of security forces; where are the jihadists; where is the Hurriyat; where are Geelanis, Yasin Maliks et al? Ultimately it is Government of India and the indian armed forces which are staking their lives to help the Kashmiris. The Indian armed forces are India's shield and sword, which keep our interests safe, our enemies at bay and the people of our country secure and free. They will always be the last bastion, as even many Presidents have publicly acknowledged in the past. 52

INS Sumitra commissioned at Chennai





Admiral R.K. Dhowan, Chief of the Naval Staff, unveiling the ships plaque along with Vice Admiral S. Soni, FOC-in-C, East, and Ship's Commanding Officer Commander M.M. Mokashi; (right) INS Sumitra at Chennai

[By Our Correspondent]

he Chief of the Naval Staff, Admiral R.K. Dhowan, commissioned INS Sumitra—fourth indigenous Naval offshore patrol vessel (OPV)-into the Indian Navy at an impressive ceremony held at Chennai. Vice Admiral Satish Soni, Flag Officer Commanding-in-Chief Eastern Naval Command, Vice Admiral A.V. Subhedar, Controller Warship Production and Acquisition (CWP&A), IHQ MoD(N), Rear Admiral Shekhar Mittal (Retd), Chairman and Managing Director, Goa Shipyard Ltd (GSL) and various other dignitaries were present during the ceremony.

Admiral R.K. Dhowan said: "The Indian Navy is a multi-dimensional force capable of meeting any challenge in the maritime domain in the Indian Ocean region. The responsibilities of protecting our vast maritime interests fall squarely on the shoulders of men in white uniform as it is the responsibility of the Navy to ensure that India's maritime interests - which have a vital relationship with the nation's economic growth - are allowed to develop unhindered both in peace and war".

He further said that INS Sumitra will have a major role to play in patrolling India's eastern seaboard and will be an important component under the NOIC (Tamil Nadu and Puducherry) and the Eastern Naval Command, which has the responsibility of countering the maritime challenges in the Bay of Bengal and the waters of the adjoining Eastern Indian Ocean region.

Complimenting the efforts of the Indian naval ship designers and defence sector shipyards, the Admiral stated that over the years we have progressively designed and constructed 120 warships and submarines of various categories in difference shipyards. "The blueprint for the future Indian Navy is firmly anchored on self-reliance and indigenisation and currently we have 41 ships and submarines under construction in various public and private shipyards within the country." It is a matter of great pride that over the decades we have transformed from a "Buyer's Navy" to a "Builders Navy", he

stated. He later unveiled the commissioning plague and dedicated the ship to the nation.

INS Sumitra is the first major ship being based at Chennai in recognition of the growing importance of the region and enhanced surveillance needs. The primary role of the ship is to undertake surveillance of the country's exclusive economic zone (EEZ) besides other operational tasks such as anti-piracy patrols, fleet support operations, maritime security of offshore assets and escort operations of high value naval platforms.

Designed and built by the Goa Shipyard Limited, INS Sumitra aptly demonstrates the immense potential of the country's indigenous design and shipbuilding capability. Measuring about 105 metres in length, 13 metres in breadth and displacing 2,200 tonnes, the ship can achieve speed of 25 knots with an endurance of 6,000 nautical miles.

The ship's weapon and sensor outfit include a 76.2 mm gun (super rapid gun mount), close in weapon systems, latest navigational and early warning radars, chaff launchers and an integrated electronic support measures system to undertake all assigned missions. She is also equipped with two rigid inflatable fast motor boats. In addition, the ship is also capable of carrying a helicopter onboard.

The propulsion package of the ship includes two Pielstick make diesel engines, which are the largest engines of their type to be inducted in the Indian Navy, and enable the ship to achieve speed of up to 25 knots. Further, the entire propulsion and power management of the ship is controlled electronically by means of a remote control system. The ship is equipped with a fully integrated LAN system along with a CCTV management system which enables optimal utilisation of onboard equipment and optimisation of manpower.

The ship is commanded by Commander Milind Mohan Mokashi, a Communication Specialist who is an alumnus of the 53rd Naval Academy Course and the prestigious 67th Defence Services Staff Course at Wellington. The ship is manned by nine officers and 105 sailors. The induction of the ship will add capacity and capability to be the Navy's efforts to protect the nation's maritime security needs.



Boeing delivers fifth P-8I maritime patrol aircraft to India

oeing delivered the fifth P-8I maritime patrol aircraft (MPA) to India on schedule on September 9 as part of a contract for eight aircraft to support the Indian Navy's maritime patrol requirements. The aircraft arrived at Naval Air Station, Rajali, after a flight from Seattle's Boeing Field, and joined the four previously delivered P-8Is.

"The P-8I programme is progressing on schedule, and the aircraft are providing the capabilities to meet our maritime reconnaissance and anti-submarine warfare requirements," said Vice Admiral R.K. Pattanaik, Deputy Chief of Naval Staff. He added that the partnership between Boeing and India has been very professional to date.

"This is another important milestone for the programme, and we look forward to continuing our great relationship with India," said Dennis Swanson, Boeing Defense, Space and Security Vice President in India. "We'll deliver one more P-8I before the end of the year, followed by two in 2015."

Boeing is building India's aircraft through a contract awarded in 2009. Based on the company's Next-Generation 737 commercial airplane, the P-8I is the Indian Navy variant of the P-8A Poseidon that Boeing builds for the US Navy.

"We appreciate that senior representatives of the Indian Navy were with us in Seattle to participate in delivery activities and watch the plane take off for Rajali," said Mark Jordan, Boeing P-8 International Program Manager. "It's a great accomplishment for the entire team, and we're hard at work assembling and testing the next P-8I in line for delivery."



The P-8I incorporates not only India-unique design features, but also Indian-built sub-systems that are tailored to meet the country's maritime patrol requirements. The P-8I features open system architecture, advanced sensor and display technologies and a worldwide base of suppliers, parts and support equipment.

In order to efficiently design and build the P-8I and the P-8A, the Boeing-led team is using a first-in-industry, in-line production process that draws on the company's Next-Generation 737 production system. P-8I aircraft are built by a Boeing-led industry team that includes CFM International, Northrop Grumman, Ravtheon, Spirit AeroSystems, BAE Systems and GE Aviation.

Deputy Chief of Air Staff flies Tejas



ejas light combat aircraft (trainer version) was flown in Bengaluru by the Deputy Chief of Air Staff Air Marshal S.B.P. Sinha. Having had first-hand experience and feel of the aircraft Deputy Chief of Air Staff expressed that the aircraft handles well both on the ground and in the air. He was on a two-day visit to the Aeronautical Development Agency (ADA) and the Hindustan Aeronautical Limited (HAL) during which, he took a review of various aspects of Tejas programme.

The first flight by a senior officer of the rank of Air Marshal from Air HQ was a joyous occasion for all the stakeholders of the programme such as ADA, HAL, National Aerospace Laboratories (NAL), Aeronautical Development Establishment (ADE), Centre for Military Airworthiness and Certification (CEMILAC), DGAQA and the IAF whose focused and synergised efforts contributed to the success of the project in large measures.

Expressing his happiness, P.S. Subramanyam, Programme Director (Combat Aircraft) and Director ADA, said, "This flight of Tejas by a senior IAF commander indicates a high degree of confidence in the indigenous light combat aircraft."

Northrop Grumman, **US Navy conduct E-2D** aerial refuelling design review



he Northrop Grumman and US Navy team have successfully conducted the preliminary design review (PDR) for its E-2D Advanced Hawkeye aerial refuelling system.

Completion of this critical milestone allows the programme to proceed to its critical design review, moving closer to manufacturing the system and installing it on new production E-2Ds as well as retrofitting it onto E-2Ds that are currently operating in the Navy fleet.

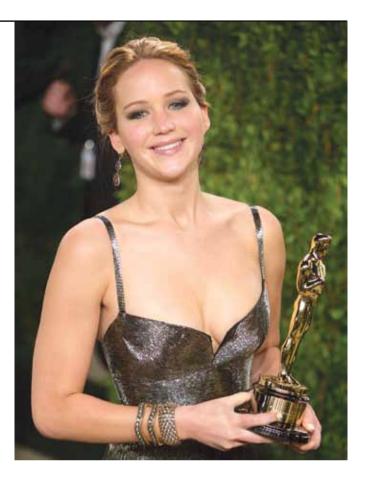
"I'm very pleased with the progress the team has made," said Captain John Lemmon, Programme Manager, E-2/C-2 Airborne Tactical Data System Programme Office (PMA-231). "Adding an aerial refuelling capability to the E-2D Advanced Hawkeye will extend its critical mission of providing continuous information to the warfighter who depends on it."

Under a \$226.7-million engineering, manufacturing and development contract awarded in 2013, Northrop Grumman is designing several system upgrades necessary to accommodate an aerial refuelling capability. These include new seats to enhance pilot field-of-view and decrease crew fatigue; formation lights for better visualisation and air space orientation; and enhanced software in the aircraft's flight control system to assist the pilots with aircraft handling qualities when refuelling.

Privacy experts joined Hollywood publicists in denouncing the leaks, which flooded websites over the weekend with intimate images of over half a dozen A-list actresses and performers including Oscar winner Jennifer Lawrence, star of The Hunger Games and Silver Linings Playbook.

The breach — regarded as one of the most wide-ranging involving celebrities — has spurred concerns about the security of photographs, videos and documents that millions of Americans store in popular Internet "cloud" accounts. Lawrence's photographs allegedly were obtained from a personal iCloud account, a service operated by Apple and often used to automatically store photos taken by a user's mobile phone.

"This is a flagrant violation of privacy," a spokeswoman for Lawrence said in a statement that threatened to seek prosecution not only of the hacker, but also for anyone who redistributed the photographs. The FBI said that it was looking into the leaks. An Apple spokesman said the company was "actively investigating" apparent breaches of some of its iCloud accounts, but the company did not identify which accounts may have been compromised.



White House locked down

man jumped the perimeter fence of the White House on September 11, jangling nerves on the 13th anniversary of the September 11 attacks. He was quickly apprehended by two armed Secret Service officers who had scrambled to intercept him. A Secret Service spokesman said the man, who was not named, was taken into custody.

The White House complex, as is standard procedure in such incidents - which are common - was locked down and people were prevented from entering and leaving the grounds.

President Barack Obama was not at home at the time because he was taking part in an event elsewhere in Washington to mark the anniversary of the 2001 attacks.

The man was seen holding a stuffed Pokemon 'Pikachu' doll and wearing clothing related to the animated show. One witness said that the man refused to heed agent's commands to "get down." The agents had their guns drawn and eventually the man sat down with his knees to his chest. He was then arrested.

The US Secret Service apprehended a different trespasser at the White House in August-a toddler who squeezed through a fence and ended up on the lawn.

Anthrax scare

n anthrax scare in July this year was the latest in a string of security lapses at the US Centers for Disease Control and Prevention (CDC), the federal agency charged with preventing the spread of infectious diseases. Roughly 84 workers at CDC's Atlanta headquarters may have been exposed to the deadly bacterium, Bacillus anthracis, after a breach at the agency's Bioterrorism Rapid Response and Advanced Technology Laboratory, the agency said. The number of workers being monitored for anthrax was revised from 75 when the lab breach was announced.

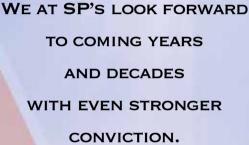
At least three different incidents between 2007 and 2012 also called into question the CDC's laboratory security system, which is designed to keep dangerous pathogens like smallpox, monkey pox and SARS from escaping into the general population. No illnesses were reported in connection with the incidents, all three of which involved malfunctioning airflow and ventilation systems.

The possession, use and transfer of dangerous biological select agents and toxins, including Bacillus anthracis, are overseen by the Federal Select Agent Program, which is operated by CDC in conjunction with agents from the US Department of Agriculture.

The 84 workers involved in the anthrax scare have been offered antibiotics and vaccination, CDC officials said, adding that at least 54 of the workers have been examined and 27 have been vaccinated. So far, none have shown signs of illness, but symptoms can take two months to appear, according to the agency. Left untreated, the inhaled form of anthrax can be deadly in 85 per cent of cases, according to the CDC. Even with treatment, the fatality rate is as high as 45 per cent. Anthrax is not contagious and the general public is not at risk, CDC officials said. 52

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