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Expert panel for restructuring acquisition wing of defence ministry

By Sushant Singh

Earlier this year, defence minister Manohar Parrikar had said that India will finalise orders for defence procurement of Rs 2.8 trillion by 2016.

To overcome the ongoing problems of delayed acquisition of military equipment, defence ministry has instituted an expert committee for ‘Restructuring of the Acquisition wing to make it more effective’. The committee, headed by former director general (acquisition), Vivek Rae, is supposed to submit its report in three months.

Earlier this year, defence minister Manohar Parrikar had said that India will finalise orders for defence procurement of Rs 2.8 trillion by 2016. He had also said that defence ministry has already decided on orders worth Rs1.57 trillion, while procurement plans worth Rs1.38 trillion will be finalised shortly.

“This expert committee is an outcome of the Dhirendra Singh Committee report and the names of the members were deliberated upon by us. The aim is to streamline the acquisition process and make it timely and responsive,” a defence ministry official explained.

Beside Rae, the nine-member committee has former financial advisor (acquisition) in the defence ministry, Amit Cowshish, Air Marshal (retd) NV Tyagi, Lt General (retd) AV Subramanian, Pritam Pal, N Sitaraman and IIM Professor Pritam Singh. Two officials from the defence ministry — JRK Rao, officiating director general (Acquisition) and Sanjay Garg, joint secretary, Defence Production who will also be the Member Secretary — are also part of the committee.

“The mandate of the experts committee is to create a procurement organisation which can function with speed and efficiency, promote Make in India and incorporate best international practices,” said Air Marshal (retd) NV Tyagi.

Two meetings of the expert committee were held in the ministry on May 2 and 3, where the committee members also met the defence minister Manohar Parrikar. The minutes of the meeting record that the defence minister was “by and large in sync with the thought process of the committee members”.

In its meetings, the expert committee “discussed various drawbacks of the present set up having acquisition wing, defence production and DRDO, all three working on different tracks without any alignment and sharing of information with each other.”

The committee members have proposed various alternatives to the current model. Any alternative, they contend, has to mean creation of a “centralised”, “self-contained organisation” which is adequately integrated with department of defence production and Defence Research and Development Organisation (DRDO). Ideally, the committee members believe, the acquisition wing of the defence ministry has to be merged with the department of defence production and DRDO.

The Asian Age
17 May, 2016

Manohar Parrikar’s UAE, Oman visit to focus on ISIS

Manohar Parrikar will become the first-ever Indian defence minister to visit the United Arab Emirates (UAE) on May 18, which in itself is quite surprising given the huge presence of Indians in the UAE. His visit has the ostensible aim to substantially further ties in defence and security,

especially relating to the rise of ISIS. “The rise of ISIS and Shia-Sunni turmoil in the region has set in new thinking in the Arab world and they are looking towards India. The need to capitalise this opportunity and seek even greater cooperation in combating fundamentalist elements is what the defence minister’s visit will seek to achieve,” an MoD official told this newspaper.

While traditionally India’s ties with Arab nations and the Gulf had been largely focused on the economics, counter terror had taken the backseat with Kashmir and ties with Pakistan being the stumbling blocks.

“That is why we hope to break new ground with the defence minister’s visit this time,” the official said. The scourge of ISIS has not left India unaffected, albeit on a much lower scale. According to Indian intelligence sources, of the more than 20 youth who have left to join ISIS, at least six have been killed in fighting in Iraq-Syria. Mr Parrikar will be in UAE from May 18 before travelling to Oman. He will return to India on May 22. This will be an Indian defence minister’s first visit to Oman in six years. The visit also assumes significance in the backdrop of unprecedented cooperation with the Arab nations on counter-terror with dozens of wanted individuals being handed over to Indian authorities in the recent past. Earlier, the ball was earlier set rolling by PM Narendra Modi visiting the UAE in September last year.

Another key item in Parrikar’s agenda will be to promote and explore markets for Indian-made defence items. “This will include a range of items including ordnance products and other military hardware”, the MoD official said. Indian plans are in the offing to ramp up manufacturing of export-oriented defence products.

The Asian Age
17 May, 2016

Jammers in border areas soon

Concerned over incidents of people living close to the border, particularly Bangladesh and Pakistan, getting mobile network from across the border, the Union home ministry, along with intelligence agencies, is preparing a plan to check this menace by installing high- frequency jammers and other technical equipment close to border areas. Some intelligence agencies, along with the ministry’s border management division, are working on the plan and will soon approach the Cabinet with a comprehensive proposal for this purpose. Ministry sources said it was observed that a number of residents living close to the border area could easily access the mobile network of neighbouring countries. It has also been noticed that in some cases these residents managed to get access to SIM cards of mobile network from neighbouring countries through a network of touts operating in that particular region.

“This problem has increased over the last few months and has serious security ramifications also. We have now asked intelligence agencies and border guarding forces like the BSF to identify spots close to the border where we can install high- capacity jammers that can block frequency of mobile networks from neighbouring countries,” a ministry official said.

The Times of India
17 May, 2016

IAF chief to fly troubled Tejas today

It will be a routine sortie of the Tejas light combat aircraft, which has clocked well over 3,050 flight tests since its first prototype took to the skies in January 2001. But the message will be significant: India's first home-grown fighter has finally come of age after a meandering developmental saga of 33 years.

Air Chief Marshal Arup Raha will become the first IAF chief to fly in the multirole supersonic Tejas at the Hindustan Aeronautics facility in Bengaluru on Tuesday morning. “The twin-seat Tejas

trainer will undergo a fullprofile sortie. It will convey IAF's confidence in inducting the indigenous fighter," said HAL chief T Suvarna Raju, speaking to TOI.

That is certainly true. After years of being highly critical of the excruciatingly slow progress in developing the fighter, which was supposed to replace the virtually obsolete MiG-21but kept on missing deadlines, the IAF finally has something to cheer about.

The Times of India
17 May, 2016

India remains stuck on the Pakistan or Nepal front, but dawn is breaking with Bangladesh

India's Look Act East policy is growing a new gateway .Conventional wisdom had Myanmar as India's lean-in platform for Asia. Bangladesh may be hijacking that role.

While India remains locked in a 1947 relationship with Pakistan and a 1950s one with Nepal, Bangladesh seems to have broken out and India and Bangladesh are taking simple but significant steps towards a new neighbourhood paradigm.The relationship is not problemfree by any stretch of the imagination, neither will it probably ever be. But dawn is breaking.

A big reason for this is a settled land and maritime boundary. The virtually seamless implementation of the land boundary agreement (LBA) on both sides, including movement of people, resettlement, rehabilitation, etc was an enormous confidence booster. India in 2014 accepted the verdict of the international tribunal on the maritime boundary, giving Bangladesh a big chunk of the sea.

Sheikh Hasina has invested in India as well rolling up many extremist networks that worked with Pakistan's ISI to target India, returning Ulfa leader Anup Chetia (Paresh Barua remains at large but for that we have to thank China), and driving many other groups out of Bangladesh to other countries.India will fence the border with electronics, lasers and keep a drone-eye open. This may keep illegal migration in check, but is a political vote of confidence. India is now investing big in Bangladesh. For the first time, three Indian companies have bid for the new port in Payra near Chittagong, four companies are building power plants, LPG, CNG, diesel will be offloaded for Dhaka's needs as it flows through Bangladesh for India's northeast, two SEZs will be populated by Indian companies. Train lines are being opened, roads being built, a bridge will be built on Feni river. If connectivity is the name of the game in Asia, India and Bangladesh are putting stakes in the ground. With a nuclear agreement in place, India will be Dhaka's consultant as they go for the first nuclear power plant from Russia. By 2020, Bangladesh has a good chance of being power ready .

With India finally being able to use the Chittagong port Bay of Bengal will become a crucial strategic space, particularly as India builds up the sensitive AndamanNicobar island chain. It has helped immensely that Bangladesh cancelled Sonadia port project by China, despite China promising deep funding and producing an attractive project proposal. The fact that Bangladesh has awarded Matarbari port, a mere 25 km away , to the Japanese points to the strategic calculations involved. In addition, Sri Lanka's disastrous Chinese debt woes on the Colombo port project may have been a cautionary note.

Driving together to meet Hasina in her office in Dhaka in 2015, Modi told Mamata Banerjee she would be flag-bearer for Indi Act East'. Mamata, for all her a's ` whimsy, has been a good partner for Bangladesh and the Centre.She was primarily responsible for the smooth transfer of enclaves and people. If she wins her election, you can expect negotiations on Teesta to start by 2017.

She is streets ahead of, say , Jayalalithaa, who is set to destroy marine life in Palk Straits and livelihoods of Sri Lankan Tamil fishermen, by allowing Indian fishermen to be bottom-trawling marauders.

Pakistan's extremist groups and their jihad central ISI are unlikely to let this development go unchallenged. The spate of extremist killings of secular bloggers, activists, academics etc can be sourced to not Syria, but closer home, to domestic extremists (Bangladesh continues to have more than its share) and those sponsored by Pakistan groups. India can expect bad things to happen on the terror front.

Just as Bangladesh is becoming more comfortable with India, India too is learning to be a better neighbour. For much of India's history, let's face it, we have been a rotten one. It's important that India shows its neighbours that it pays to be friends with us. We won't solve everything, but at least we won't be yelling at each other.

Don't expect this evolving dynamic to be an inspiration to either Nepal or Pakistan. If Pakistan is the rogue of the region, Nepal is the spoilt brat. There is a limit to what can be done with both.

The Tribune
17 May, 2016

Arms purchases: Scam, ban and rhetoric

By Dinesh Kumar

India's 58-year-old Defence Research and Development Organisation has 50 laboratories, eight defence public sector units and 40 ordnance factories. However, India's armed forces are still dependent on imports for 70 per cent of their defence equipment.



The Bofors gun played a critical role in the 1999 Kargil War. For long the “Bofors syndrome” impacted India's big-ticket defence buying.

Another scam, another ban. This has become the standard practice of every Union government each time allegations of kickbacks surface after a defence deal is signed.

The latest major company to be banned is Agusta Westland owing to allegations of kickbacks in the purchase of 12 AW 101 transport helicopters. The government, which signed the contract in February 2010, froze it in February 2013 barely two months after a first batch of three helicopters

arrived in December 2012. But even these three choppers fitted with special security features, meant for high-value dignitaries such as the President and the Prime Minister, have been unable to fly. Reason: they are grounded due to a crisis of spares and after-sales support along with the absence of political clearance.

India's continuing legacy of banning firms started in the mid-1980s when the government blacklisted the Swedish company, Bofors and the German company, HDW following allegation of graft in the purchase of 410 pieces of the 155mm FH-77B Howitzer and four Type 209 submarines, respectively. The "Bofors syndrome" ended up causing such an atrophy in decision making that for almost two decades thereafter successive governments either shied from purchasing big-ticket items from any major private foreign vendor or ended up banning companies each time allegations of kickbacks surfaced. Purchases during this period were mostly made on a government-to-government basis which, though relatively kickback-free, is an expensive route that limits options.

Due to severe shortcomings in indigenous capability despite a 58-year-old Defence Research and Development Organisation with 50 laboratories, eight defence public sector units and 40 Ordnance Factories, India's armed forces are dependent on imports for 70 per cent of their defence equipment. Due to this high degree of import dependence, every such ban has adversely impacted the modernisation of the armed forces and therefore India's defence capability. The fact is only a limited number of foreign firms are producing high-end defence equipment. In the corporate world's fast-paced environment, firms keep acquiring or merging or form conglomerates. They are also constantly collaborating with, sub-contracting or outsourcing components to other firms located in various countries. This has combined to complicate the world's defence military-industrial complex. Thus, a ban on one company may in effect tantamount to blacklisting other firms from which India may have bought an entirely different set of defence equipment. Blacklisting on occasions has been wholesale. For example, when allegations surfaced that the former Director-General of the Ordnance Factory Board (OFB) had taken a bribe, the government ended up blacklisting six firms — four foreign and two Indian — at one go in March, 2012. Among the four foreign companies was the Israeli Military Industries (IMI) which, in 2009, had won a \$300 million contract for building a chain of ordnance factories in Bihar to manufacture ammunition for the Bofors 155 mm artillery guns. In addition to depriving the artillery of much-needed ammunition for the gun which played a critical role during the 1999 Kargil War, the government then almost put into jeopardy upgrade programmes of the Jaguar, MiG-21, MiG-29 and Mirage-2000, fighters, the An-32 transport aircraft, the M-1 series helicopters and supply of the Phalcon radars for India's Airborne Warning and Control System. The other three foreign firms banned were Singapore Technologies (meant to supply ultra-light Howitzers), Germany's Rheinmetall Air Defence and Russia's Corporation Defence.

Such is the level of petty politicisation that in February 2000, then defence minister George Fernandes went to the ridiculous extent of ordering an inquiry into every defence procurement made since 1985. Yet corruption in defence purchases seems near epidemic. In 2005 alone, the CBI was investigating as many as 47 cases of defence procurement. In the subsequent five years (2005 to 2010), India went on to cancel deals involving import of 400 anti-material rifles, 197 light helicopters (to replace the ageing Cheetah and Chetak) and 400 pieces of 155 mm towed artillery guns (from South Africa's Denel) after years of technical trials and negotiations. Then in just three years, from 2012 to 2014, the Central Vigilance Commission referred nine cases for inquiry; the CBI registered 23 cases in connection with defence purchases and the Defence Ministry debarred 10 firms for 10 years.

After spending much time and money, the fact remains that in most cases, starting with Bofors, investigative agencies have been unable to obtain evidence. Neither are firms taken off the blacklist. Due to the blacklisting of Bofors and Denel, the Artillery has been unable to add a new gun for the last three decades. It currently has less than the original 410 155 mm guns in service which is a far

cry from the original 1,840 Bofor guns that were planned to equip 92 artillery regiments and 3,600 guns envisaged by 2025. Similarly, the Indian Navy, which is currently down to just 13 conventional submarines, lost an opportunity to acquire more HDW submarines. What a waste!

As it is India's procurement procedure involves 13 different agencies reporting to different functional heads. There are, by turn, eight stages of processing. Each consists of nine to ten approval points, with each approval point having at least three submission points.

With India expected to spend about \$100 billion over the next decade on modernising the armed forces, surely there is a need to further simplify procedures and consider devising pragmatic policies in case allegation of kickbacks surface. Bribes must be investigated and the guilty punished but cancelling deals and blacklisting a firm in today's global village after such lengthy and cumbersome procedures that is always followed by a long delivery schedule is akin to shooting oneself in the foot. It only harms the country's armed forces and national security considering that “Make in India”, although ideal, is currently only a slogan.

The Tribune
17 May, 2016

Agusta scam dents Navy readiness

By Ajay Banerjee

Guns, torpedoes, radars, short-range missiles on hold

The bribery scandal involving banned Anglo-Italian helicopter maker AgustaWestland is taking a silent toll on the Navy's readiness. Ship deck guns, radars, short-range missiles and torpedoes — all needed by under-construction warships and submarines — are held up.

Finmeccanica, the mother company of AgustaWestland, has been barred from supplying the same.

More than a dozen under-construction warships, including the upcoming sea-borne aircraft carrier and the Scorpene Submarines, were built according to specifications of certain types of weaponry or radars. Most of the European systems have some link to Finmeccanica. The matter is in the notice of the Ministry of Defence.

Speaking in Lok Sabha on May 6, Defence Minister Manohar Parrikar was categorical that he was not going to blacklist Finmeccanica. The Army, Navy and IAF have several equipment that have parts produced by Finmeccanica and all contracts already signed have been put on hold. However, the company cannot bid for future contracts, Parrikar had said.

As of now, the under-construction aircraft carrier, Vikrant, needs high-powered radar that was to be provided by Selex, a Finmeccanica company.

The first of the six Scorpene submarines, the Kalvari, is out on sea trial but it still does not have its most potent weapon — a heavyweight torpedo. The ‘Whitehead Alenia Sistemi Subacquel’ (WASS), a subsidiary of Finmeccanica, was to supply the same to DCNS — the French Submarine maker — for mating it with the Scorpene.

Four of the Kamorta-class corvettes need short-range surface-to-air missiles (SRSAM) as close in protection. The supplier MBDA also has a link to Finmeccanica. Two such ships are still under construction.

Four of the Visakhapatnam-class guided missile destroyers need 127 mm ship-deck guns and so do the next seven ships of the Shivalik class stealth frigates. The guns are made by ‘Otomelara’ naval guns, another Finmeccanica company.

The proverbial last straw on the camel's back is the fact that the Navy's network centric warfare backbone also depends on equipment supplied by Finmeccanica.

The MoD has asked the Navy to look at other alternatives but again this could take years to fructify.

Widening gap between demand and supply

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*Deccan Herald
17 May, 2016*

India-US maritime dialogue reviews challenges, cooperation

By Anirban Bhaumik

New Delhi: The first India-US maritime security dialogue focused on China's growing assertiveness in Asia-Pacific, particularly militarisation of South China Sea.

Diplomats and defence officials of India and US met in New Delhi on Monday to discuss "strategic maritime issues". The first India-US maritime security dialogue was held at a time when both sides are preparing for Prime Minister Narendra Modi's forthcoming visit to Washington DC and his meeting with American President Barack Obama - scheduled early next month.

The US embassy in New Delhi said in a brief statement that "Asia-Pacific maritime challenges, naval cooperation, and multilateral engagement" were among the issues discussed in the meeting.

Officials in New Delhi told DH that the "Asia-Pacific maritime challenges" included China's bid to build strategic assets in Indian Ocean region to encircle India, its growing maritime assertiveness and escalation of tension over South China Sea in the wake of Beijing's move to construct military infrastructure on several islands in the disputed waters.

The Department of Defence of the US government recently reported to the American Congress that China had reclaimed more than 3,200 acres of land in South China Sea and was now focusing on "weaponizing" the man-made islands. It reported that China was building 10,000-foot-long runways and large ports on the artificial islands in South China Sea. China also excavated deep channels, created and dredged harbours, and constructed communications, logistics and intelligence gathering facilities, added the report by Pentagon.

Beijing said that the "hyped-up" report by the US had "severely damaged mutual trust" between China and America and "deliberately distorted" the defence policy of the communist country.

The officials representing the Indian government told their US counterparts on Monday that New Delhi had always been in favour of "safeguarding maritime security and ensuring freedom of navigation and over-flight throughout the region, including in the South China Sea". India and US are also in agreement on need for a rules-based order and regional security architecture conducive to peace and prosperity in the Asia-Pacific and Indian Ocean.

India, China to renew counter-terror pact

New Delhi: India and China have agreed to renew and expand their decade-old counter-terrorism pact although the dust is yet to settle over Beijing blocking New Delhi's bid to impose sanctions on Masood Azhar, chief of Pakistan-based militant outfit Jaish-e-Mohammed. Azhar was blamed for the attack on the Pathankot airbase in January.

This amounts to a breakthrough in an area of crucial significance for the neighbours ahead of President Pranab Mukherjee's four-day visit to China from May 24.

The memorandum of understanding (MoU) on cooperation on counter-terrorism measures between the ministry of home affairs and the ministry of public security was signed in 2005. "The MoU had lapsed and the two sides were looking at renewing it for some time. The two countries have reached a consensus on renewing it," said an official.

The official added that both sides have been discussing various means to expand their counterterrorism cooperation along with the renewal of the MoU.

India and China under scored the need to step up their joint efforts on counter-terrorism measures during their bilateral counter-terrorism consultation in November last year, which was the first special-focus meeting on the issue after the NDA government came to power in 2014.

In the same month, home minister Rajnath Singh made a pitch for the issue on his visit to China.

China also blocked a motion initiated by India at UN last year to question its ally Pakistan over the release of Zaki-ur-Rehman Lakhvi, a LeT commander behind the terrorist attack in Mumbai in 2008.

"But the two sides agree that counter-terrorism is an area that needs immediate focus," said an official, adding the matter was discussed in detail when national security adviser Ajit Doval visited China in April.

The two countries will exchange information on terrorist groups and their linkages, along with experience and expertise by counter-terrorism experts. Cyber security issues, telecom-related and economic crimes, will also be areas of focus besides cooperation in the law-enforcement capacitybuilding. When asked about the signing of the MoU, an official, without indicating a time-frame, said, "We hope soon."

The Times of India
17 May, 2016

Beijing to present its side of S China Sea story in Delhi today

As the South China Sea verdict on the Philippines arbitration case against China approaches, Asia is seeing a flurry of activities with everyone trying to win friends and influence opinion-makers in the region.

Hoping to give their version of the issue at stake, Beijing is sending a highlevel team of experts for a seminar in Delhi on Tuesday. They will give the legal and historical perspectives on the region as China sees it. The experts include Wu Shicun, from National Institute for South China Sea Studies, Ye Hailin, Institute of Asia-Pacific Studies, Chinese Academy of Social Sciences and Zhang Junshe from Naval Research Institute of Chinese PLA Navy .

On Monday, India and the US held their first maritime security dialogue which encompassed some key areas of engagement and possible future cooperation. Asia-Pacific featured prominently in it, effectively meaning that South China Sea was the main topic of conversation. A statement by the

US embassy said, “Among the issues discussed were Asia-Pacific maritime challenges, naval cooperation, and multilateral engagement.” The Indian side included Shambhu Kumaran, Munu Mahawar and Amandeep Gill -joint secretaries from foreign and defence ministries-while on the US side was assistant David Shear and Manpreet Anand from the state department and Pentagon and Vice Admiral Aucoin, Commander of US Seventh Fleet.

Taiwan has re-issued its position on the South China Sea this week, particularly lashing out at the Philippines for “downgrading“ Taiping Island “from an island to a rock“ during the proceedings at the Arbitration Court. Taiwan, it says will not accept anything that undermines its sovereign claim to Taiping Island.

Singapore and Australia had elevated their relations to a “comprehensive strategic partnership“ last week, with a big component of defence and intelligence-sharing activities, including a multi-billion dollar pact to jointly develop military training areas and facilities in Australia.

Meanwhile, China has accused Vietnam of exactly the same kind of land reclamation in South China Sea that it has been accused of. China has reclaimed 3000 acres of new land on the features it controls in the Spratly islands. Vietnam has been accused of doing the same in Southwest Cay , Sin Cowe Island and West Reef. Vietnam, like China, has refused to heed any international call to halt island-building.

India doesn't take any position on the territorial sovereignty in the South China Sea but wants it to be settled according to international law. India is, however, a strong proponent of freedom of navigation in the South China Sea. In a joint statement with the Philippines, India even referred to it as the West Philippines Sea.

The Hindu
17 May, 2016

Beijing, New Delhi capable of solving disputes, China tells U.S.

Asking the U.S. to respect the efforts by China and India to resolve their boundary dispute peacefully, a top Chinese official on Monday said the two nations are wise enough to deal with it after the Pentagon accused Beijing of deploying more troops along the Sino-India borders.

“The Chinese side is committed to safeguarding peace and tranquillity of the border areas between China and India and resolving the boundary question through negotiation,” the Chinese Foreign Ministry said.

The U.S. military report also warned of increasing Chinese military presence in various parts of the world, particularly in Pakistan.

Peaceful settlement

“China and India are wise and capable enough to deal with this issue. It is hoped that other country would respect efforts made by China and India for the peaceful settlement of dispute, rather than the opposite,” the Foreign Ministry said, apparently referring to the U.S.

U.S. Deputy Assistant Secretary of Defense for East Asia Abraham M. Denmark had said that “we have noticed an increase in capability and force posture by the Chinese military in areas close to the border with India”.

“It is difficult to conclude on the real intention behind this,” Mr. Denmark said on Saturday after submitting Pentagon’s annual 2016 report to the U.S. Congress.

“It is difficult to say how much of this is driven by internal considerations to maintain internal stability, and how much of it is an external consideration,” he said in response to a question on China upgrading its military command in Tibet.

Strong dissatisfaction

On Sunday, the Chinese Defence Ministry expressed “strong dissatisfaction” and “firm opposition” to the Pentagon report which also alleged that China is focusing on the militarisation of the artificial islands built by it in the disputed waters of the South China Sea in a bid to assert its control.

The Pioneer
17 May, 2016

India’s Missile Test Will Disturb Balance Of Power: Pakistan

Pakistan has said India’s supersonic interceptor missile test will disturb the balance of power in the region and it plans to raise the issue at the international level.

“Pakistan will raise its voice at the international level against these developments,” Adviser to Pakistan Prime Minister on Foreign Affairs Sartaj Aziz said.

He said Indian supersonic interceptor missile test will disturb the balance of power in the region, Radio Pakistan reported. Aziz said Pakistan is not oblivious to its defence and will continue to upgrade its defensive capabilities. He said Pakistan will definitely acquire advanced technology to improve its defence.

He said India is getting cooperation from the US, which thinks a strong India is vital to contain China. Aziz’s remarks came a day after India successfully test-fired indigenously developed supersonic interceptor missile, capable of destroying any incoming ballistic missile, from a test range off Odisha coast.

The Hindustan Times
17 May, 2016

Pak will acquire advanced tech to counter India

The test launch of the supersonic interceptor missile by India is not a surprising news for us, but definitely we are concerned over the disturbing of the balance of power in the region. SARTAJ AZIZ, Pakistan’s foreign policy advisor

ISLAMABAD: Pakistan has said it will “definitely acquire” advanced technology to boost its defence after India’s successful test of a supersonic interceptor missile.

Sartaj Aziz, adviser to the prime minister on foreign affairs, told state-run Radio Pakistan that Islamabad is not oblivious to its defence and will continue to upgrade its defensive capabilities.

Expressing concern at India’s missile test, Aziz said it will disturb the region’s balance of power. He added Pakistan will acquire advanced technology to improve its defence “The test launch of the supersonic interceptor missile by India is not a surprising news for us, but definitely we are concerned over the disturbing of the balance of power in the region,” he said.

He said India is enjoying cooperation with the US because Washington thinks a strong India is vital to contain China. But Pakistan will raise its voice at the international level against these developments, he said.

Aziz’s remarks came a day after India successfully tested an indigenously developed supersonic interceptor missile, capable of destroying any incoming ballistic missile, from a test range off the Odisha coast. The foreign policy chief said India and Pakistan are bound by an agreement to inform each other about missile tests.

Aziz recently accused India of lobbying to block the sale of eight F-16 combat jets to Pakistan by the US. The Obama administration said Pakistan can acquire the jets if it is prepared to pay their full price of nearly \$700 million since the Congress has blocked a subsidy for the deal.

US ने बनाया सबसे ताकतवर वॉरशिप

अमेरिका के पास अपने विशाल समुद्री तटों की रक्षा के लिए एक नया डेस्ट्रॉयर शिप मिल गया है। इसे दुनिया का सबसे ताकतवर वॉरशिप कहा जा रहा है। 32 शिपों की लागत से अमेरिका मात्र तीन शिप बना रहा है। इनमें से एक यह है।



लागत

शिप की फाइनल कॉस्ट 4.4 अरब डॉलर आने का अनुमान है।

शेप : इस शिप का ढांचा और बनावट ऐसी है कि रेडार के लिए इसे पहचान पाना 50 गुना ज्यादा मुश्किल है। रेडार पर यह किसी मछली नौका जैसा दिखता है।

गन सिस्टम : इसमें तैनात गन रॉकेट तक दाग सकती हैं। यही नहीं ये 100 मील की दूरी तक सटीक निशाना लगा सकती हैं।

कू : बाकी डेस्ट्रॉयर की तुलना में इस पर कू की जरूरत कम होती है क्योंकि सारे काम अडवांस्ड होने के कारण ऑटोमैटिक हैं। वैसे 143 कू मेंबर्स दो साल से इसे ऑपरेट करने की ट्रेनिंग ले रहे हैं।

पावर : इसे टरबाइन से पैदा बिजली से चलाया जाता है। ये टरबाइन ठीक बोईंग 777 की टरबाइन जैसी हैं।

निर्माण : जमवाल्ट को बाथ आयरन वर्क्स शिपयार्ड पर तैयार किया गया है और इसी हफ्ते एक सेरेमनी में इसे नेवी को सौंपा जाएगा। जमवाल्ट का होम पोर्ट सैन डिएगो होगा जहां इसके कुछ और ट्रायल व टेस्ट होंगे।

अगला : जमवाल्ट के अलावा इस क्लास के दो और शिप - माइकल मंसूर और लिंडन बी. जॉन्सन पर काम चल रहा है। मंसूर के अगले माह तक तैयार होने की उम्मीद है।

Obama, Trump and a question in Japan

America's leaders have drawn attention to a deep paradox of Japan's nuclear story

In very different ways and for very different reasons, US President Barack Obama and the presumptive presidential nominee of the Republican Party, Donald Trump, have broken long-established taboos on Japan's nuclear story. If Obama is asking America to meditate on the tragic nuclear bombing of Japan in 1945, Trump is preparing America to consider the prospect of a nuclear-armed Japan.

In a bold decision, Obama is travelling to Hiroshima later this month at the end of his visit to Japan to participate in the annual gathering of Western leaders. Obama will be the first US president to visit the city, where America dropped a nuclear bomb on August 6, 1945, killing about 80,000 people instantaneously.

Obama's decision hasn't come as a total surprise. Secretary of State John Kerry travelled to Hiroshima last month, visited the memorial in the city for the victims of the nuclear bomb and called it a "gut-wrenching" reminder of the need to get rid of nuclear weapons.

For Obama, the passage to Hiroshima consolidates his political legacy in promoting nuclear disarmament, for which he won the Nobel peace prize in 2009. Meanwhile, Trump has moved the argument in an entirely different direction. He set off a political storm at the end of March by declaring that he would have no issue with Japan if it acquired nuclear weapons in order to secure itself.

The question of Japan's nuclear weapons had come up in the context of Trump's argument that America's allies in Europe and Asia are not doing enough to share the burden of their defence by the US. In Europe, he said, Nato had long outlived its utility and would need to be thoroughly overhauled.

On Asia, Trump affirmed that Japan and South Korea must either pay more for the cost of the US military presence there or countenance the withdrawal of US troops. Trump has been unfazed when confronted with the question that the downsizing of the American military presence in Asia would result in the allies acquiring nuclear weapons. "Now, wouldn't you rather in a certain sense have Japan have nuclear weapons when North Korea has nuclear weapons?" Trump said in a counter to the conventional nuclear wisdom in America.

Both Obama and Trump have come for much criticism. In the US, Obama's Hiroshima visit is reigniting the controversy about the wisdom of using nuclear weapons against Japan in 1945. The dominant view in America is that the nuclear bombing of Hiroshima and Nagasaki helped bring World War II in Asia to an early close and saved many lives that would have been lost in an invasion of Japan. A small group of revisionist historians in America, however, has long insisted that the dropping of the bombs was entirely unnecessary and that the emperor's surrender was at hand. Some analysts have seen the decision as the first act of the Cold War against the Soviet Union rather than the last act in the war against Japan. They suggest the bomb helped demonstrate America's new military power and prevented an expansive role for Moscow in shaping post-war Asia.

Obama is not going to revisit President Harry Truman's decision to drop nuclear weapons on Hiroshima and Nagasaki. Although the White House has clarified that there will be no speeches by Obama in Hiroshima, his critics insist his very presence will be seen in Japan as an apology.

Trump, in turn, has come in for criticism in the US for his readiness to upend the American alliance system in Asia, undermine the global non-proliferation regime by encouraging Japan to acquire

atomic weapons, and encourage a nuclear arms race in Asia. Trump, however, has argued that the present order, where the US bears a large portion of the burden of defending two of the richest countries of Asia, is simply not sustainable.

Obama and Trump, if only inadvertently, have drawn attention to the deeper paradox of Japan's nuclear story. Although Japan was the first and only victim of atomic weapons, its post-war security has depended on the American "nuclear umbrella". Long before Trump, the credibility of the US's extended deterrence had come under some questioning in Asia. Some in the region doubted if the alliance and the nuclear system designed against the Soviet threat would work against the current challenges from a rising China.

If China's growing military power is putting pressure on America's forward military presence in the Pacific, Beijing's central role in the world economy and its new political weight are testing the durability of American alliances in Asia. One way out of this conundrum is for Japan to strengthen its own defences, embark on a more active regional security role and reconsider its nuclear-weapon option if the American alliance becomes unreliable.

Under Prime Minister Shinzo Abe, Japan has already adopted the first two propositions, but an open and serious discussion of the nuclear question remains quite controversial in Japan. But as the old taboos break down, such a Japanese discourse seems more likely in the years ahead.

The Hindu
17 May, 2016

The fee for NSG membership

China's announcement that it intends to oppose India's membership of the Nuclear Suppliers Group unless it agrees to sign the Non-Proliferation Treaty (NPT) comes just a month ahead of the NSG's annual plenary session. For the past year, India had made admission to the 48-member NSG a focus of its international outreach, though membership has been a goal since the India-U.S. civil nuclear agreement was signed in 2008. Several major countries including the U.S., Russia, Germany, the U.K. and Australia have openly backed the bid, despite the fact that India is not a signatory to the NPT, widely considered to be a key criterion for NSG membership. In 2015, India reached out to many other NSG members, including those such as Ireland and Sweden that are members of the pro-disarmament group, the New Agenda Coalition, and have traditionally been opposed to its admission. The visit to New Delhi of NSG Chairperson Rafael Grossi in October 2015, when he spoke of taking the request forward, was seen to be a positive sign in this effort. Thus the disappointment after the signal from Beijing last week. Clearly, China's stand is a combination of its fraught relations with India as well as its desire that its "all-weather friend" Pakistan not be disadvantaged in the process. While this ignores Pakistan's well-known proliferation record, it also points to failure on the part of Indian diplomats tasked with convincing China that admitting India to the NSG is the logical thing to do.

However, this is not the end of the road for India's NSG ambitions. Indeed, it is a signal that more persuasive diplomacy is needed to bring around naysayers such as China from blocking New Delhi's bid, much as was done to bring China on board to get India the NSG waiver in 2008. For this, the government must begin an internal debate to appraise its own position on the NSG membership, and to figure out how far it is willing to go to secure it. It will, first, have to reckon with the possibility that NSG members could object to an "India-specific" ruling, and that other non-NPT countries, including Pakistan and Israel, may also benefit from any flexibility that is shown in India's case. Second, there is a possibility that India could receive a "second class" membership, and not be considered a "nuclear weapons state" by the NSG. The third, and most important, point is that membership of the NSG, a body set up specifically in response to India's nuclear test in 1974, will eventually require India to curtail its nuclear weapons programme. U.S.

President Barack Obama's comments, made after the Nuclear Security Summit, that the nuclear arsenals of India and Pakistan are taking them in the "wrong direction", underscore this. If India aims to be part of the elite NSG club, it must have a realistic idea of what the fee for full membership is, added to the diplomatic outreach required to win support from China. A full and transparent cost-benefit analysis is crucial.

Deccan Herald
17 May, 2016

Future cyber security: smart, safe cities

By S S Iyengar and Jerry Miller

Since time immemorial, people have flocked to cities seeking economic advantage and safety. However, as populations grew, it became difficult for people to find either. Cities and their resources have been stretched to their limits by exponential growth, the boom and bust cycle of business and by crime. Natural and man-made disasters also impact an increasing number of people and their safety. It's been reported that 31% of India's population now lives in cities, where they generate 63% of the nation's economic activity. City growth in India is projected to increase at a rate where over half of the population will be urbanites by 2030.

Recent technological advances, in particular the use of sensors, mobile devices and online social networks have inspired a revolution in city design and management which have led to the development of smart cities.

Through the Smart Cities project started by Prime Minister Narendra Modi, India recently launched three enormous urban schemes to improve living conditions in cities - the Smart Cities Mission, Atal Mission for Rejuvenation and Urban Transformation (AMRUT), and Housing for All in urban areas. The Government of India allocated Rs 98,000 crore to develop 100 smart cities over the next five years.

What are Smart Cities?: "Smart City" is the buzzword for a new or revitalised urban area integrated with multiple secure information and communication technology (ICT) solutions to manage the city's assets, including education, transportation, electrical, telecommunication, waste management as well as health and safety systems. Innovative ICT is at the heart of this revolution in city planning. Through the use of sensors integrated with real-time monitoring devices, important infrastructure systems data are collected and analysed to improve efficiency, reduce costs and ensure supply and use of sustainable resources.

Education is an important core element of a smart city programme. In order for these programmes to work and be effective, people need to understand what smart systems are and how they can participate in their use and drive their development to assist them in their daily lives and businesses. An understanding of the value of different smart systems will also lead to an understanding of the challenges of privacy, ethics and security inherent in all digital information collections and analytics.

Utilities comprise some of the first and most important elements of a smart city's infrastructure. Utilities companies have installed smart metres that not only record the overall amount of energy used, but can be programmed to record every half hour or less at home in order to precisely determine energy consumption, notify the utility of a power outage, and allow the company to remotely switch electricity service on or off to a particular building, saving time, resources and manpower. Data collection and analysis through these digital metres enable energy providers to be more efficient and to calculate exact times when energy demands may be highest for particular regions.

Improved efficiency

The use of smart systems in transportation has demonstrated improved efficiency in travel and parking. Through the Florida International University Smart Wave Project in Miami, Florida, the US, researchers have been working with the National Science Foundation and the Florida Department of Transportation to develop improved transportation systems for Miami and other major global cities.

All systems developed, demonstrated and validated through this research incorporate a smart vehicle component using the Informed Traveller Programmes and Applications (ITPA) technologies. The ITPA provides an informed, multimodal travel system using real-time, travel related data on present traffic flow, emergency events, special community events, weather, historic traffic affecting trends and parking conditions at an informed traveller's destination. The information is presented on a smartphone-based interface that provides personalised, timely information and advice. The system provides the most efficient, cost-effective travel paths for users consistent with the traveller's destination and scheduling requirements.

The system is in use at Florida International University in Parking Garage-6, known as the Tech Station. Through a variety of sensors, the system monitors all parking spaces and relays open parking information to travellers as they arrive at the university. Through their smartphone interface it directs them directly to the specific open parking area to their destination, saving time and fuel.

Within the School of Computing and Information Science at Florida International University, researchers including the author, have developed a smartphone-based system known as iSAFE, which provides a personalised, context aware safety programme that analyses and predicts crime throughout an urban area such as Miami, and relays the information to the user as he travels through various communities within the greater urban area.

The device computes real-time snapshots of the safety profiles of users in a privacy preserving manner. By dividing the entire urban environment into small census blocks and evaluating them through time periods based on types of crimes committed, such as homicide, larceny, robbery, assault etc, the system can actively advise a traveller when he is approaching a potentially hazardous area at that particular time. The system continues to provide information to predict the area's crime index, identifying potential alternate routes for the travellers, which provide better personal safety.

The ITPA, iSAFE and other systems can be applied to health, medical and other individual systems to provide predictive safety, security and public health to inhabitants within our smart, safe cities. As we continue to advance these technologies, researchers are incorporating cybersecurity to ensure these systems remain uncompromised.

(Iyengar is a distinguished Ryder Professor and Director, School of Computing and Information Sciences, Miami; Miller has been with the US Air Force for over two decades and is Coordinator, Discovery Lab, Florida International University)

The Hindu
17 May, 2016

ISRO's Reusable Launch Vehicle to take off next week

By R. Ramachandran & T. S. Subramaniann

The technology demonstrator will take place from Satish Dhawan Space Centre in Sriharikota.

The first technology demonstrator (TD) launch of the Indian Space Research Organisation's Reusable Launch Vehicle (RLV), or the spaceplane in popular parlance, will take place on May 23

at 9.30 a.m. from the Satish Dhawan Space Centre (SDSC), Sriharikota, according to ISRO officials.

Visually, the RLV-TD is a rocket-aircraft combination measuring about 17 m, whose first stage is a solid propellant booster rocket and the second stage is a 6.5 m long aircraft-like winged structure sitting atop the rocket.

A misnomer

However, the popular perception of the technology as a marriage between rocket and aircraft is a misnomer.

In RLV-TD that is awaiting launch at SHAR, the first stage, weighing about 9 tonnes, is merely the Satellite Launch Vehicle (SLV-3) flown in the 1980s.

The vehicle will take off like a rocket and the RLV will be taken to a height of 70 km and where the booster will release the vehicle to carry out its manoeuvres.

Hypersonic Experiment 1

According to Dr. K. Sivan, director of the Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram, where the RLV was designed, assembled and where it underwent basic electrical, hydraulic and “sign check” tests, the objective is to achieve hypersonic speeds to basically test the hypersonic aero-thermodynamic characterisation of the winged body’s re-entry, its control and guidance systems, autonomous mission management to land at a specific location at sea and testing of “hot structures” that make up the structure of the RLV.

The test is, therefore, termed as Hypersonic Experiment 1 (HEX-1).

Complex technology

A conventional launch vehicle (LV), says Dr. Sivan, spends the lowest time of its flight in the atmosphere, whereas the RLV system spends all the time in the atmosphere. Also, while an LV experiences limited flight regime of say Mach 0 to Mach 2 or so, the RLV experiences a much wider range of flight regimes.

Hence the technology of an RLV is much more complex basically arising from the design of the control and guidance systems, he pointed out.

In HEX1, the winged RLV is otherwise a dummy with no powered flight of its own. At the end of the HEX1 mission, the aircraft will land in sea. However, the ultimate objective of the RLV programme of ISRO is to enable the vehicle traverse a very wide range of flight regimes from Mach 0 to Mach 25 based on air-breathing propulsion for achieving two-stage-to-orbit (TSTO) launch capability.

The integrated test system (booster plus the RLV-TD) is already at the SDSC (SDSC), Sriharikota. Prior to being moved to Sriharikota, the RLV subsystem underwent acoustic tests at the National Aerospace Laboratories of the CSIR (CSIR-NAL) and the booster went as a separate subsystem directly from VSSC. At SDSC the two were mated together.

Dr. A.S. Kiran Kumar, ISRO Chairman, called the first test launch HEX1 “a very preliminary step” and stressed that “we have to go a long way” before it could be called a re-usable launch system. “But these are very essential steps we have to take,” he said.

Lower cost

Asked whether the Indian reusable launch system was aimed at bringing down the launch cost, the ISRO Chairman said, “It will bring down the cost. Towards that, we will have to work and go through these initial steps,” the Chairman said.

Flying test bed

The present design is basically “a flying test bed to evaluate various technologies, namely hypersonic flight, autonomous landing, powered cruise flight and hypersonic flight using air-breathing propulsion using a scramjet engine”, according to ISRO website.

The HEX series of experiments will be followed by the landing experiment (LEX), return flight experiment and scramjet propulsion experiment (SPEX).

The basic design of a scramjet has already been evolved.

A test launch of the engine aboard a sounding rocket, which will achieve a flight regime of up to Mach 8, will take place some place in June at SHAR, Dr. Sivan said.

The Hindu
17 May, 2016

RLV-TD cleared for launch 3 years ago

It may be recalled that the RLV-TD had undergone a review in 2012 itself and had been cleared for launch in late 2013. According to Dr. K. Sivan, director of the Vikram Sarabhai Space Centre (VSSC), there were essentially three reasons for the delay of three years. One was though ISRO had planned for a certain schedule of launches, because of some unforeseen failures in GSLV launches, the entire schedule got affected.

“All the engineering effort had to be diverted to make the indigenous cryo-engine successful,” Dr. Sivan said.

“Iron Bird” simulations

Another chief reason was the realisation of the necessity of carrying out additional tests of the RLV system. Among these was a very important test called “Iron Bird” simulations. What is done here is to connect the entire RLV system mechanically as in flight condition and carry out the simulations. Here the actual flight profiles are simulated using mechanical actuators (complete with hydraulic plumbing lines), control electronics and the entire Navigation and Guidance Control (NGC) hardware and software developed at ISRO.

This test was not included in the earlier Loop Simulation runs for RLV-TD.

Use of ‘hot structures’

The second is related to the use of “hot structures” in RLV. In conventional launch vehicles, the structural elements are called cold structures because temperature is not a criterion there. Here, however, thermo-structural stability of the elements becomes important, Dr. Sivan pointed out. This was also not there in earlier considerations. A conventional LV, for instance, undergoes structural and thermal tests separately.

“These are very time-consuming tests,” pointed out Dr. Sivan, “wherein most intricate and detailed data have to be obtained.” For “hot structures”, such as the nose cap, the RLV uses carbon-carbon composite structure.

The Times of India
17 May, 2016

ISRO's Foreign Exchange Earnings Rose 3 Times In 2015

Between Jan 2013 and Dec 2015, the number of foreign satellites carried into space by Indian Space Research Organisation rockets has gone up sharply, with a proportionate increase in revenue earnings from 6.5 million in 2013 to 55.5 million in 2015. Antrix Corporation Limited, the commercial arm of Isro, has been contracted by nine countries to launch 28 satellites in space

As more countries used Isro to launch their satellites...

SATELLITES
LAUNCHED
(JAN '13 -
DEC '15)



...Isro's revenue went up sharply



Total foreign
satellites launched

28

Total earning
(Euro mn)

80.6

Source: Department of Space
Research: Atul Thakur; Graphic: Arpit Sharma

US law firm makes a case for AI, hires world's first robot lawyer

The world's first artificial intelligence lawyer has been employed by a law firm in the US, which will use the robot to help it with legal research.

The robot, called 'ROSS', is built upon Watson, IBM's cognitive computer. With the support of Watson's cognitive computing and natural language processing capabilities, lawyers can ask ROSS their research question and the robot reads through the law, gathers evidence, draws inferences and returns highly relevant, evidence-based answers.

ROSS also monitors the law around the clock to notify users of new court decisions that can affect a case. The programme continually learns from the lawyers who use it to bring back better results each time. BakerHostetler, a US-based law firm, will license ROSS for use in its Bankruptcy, Restructuring and Creditors' Rights team. "At BakerHostetler, we believe that emerging technologies like cognitive computing and other forms of machine learning can help enhance the services we deliver to our clients," said Bob Craig, the firm's chief information officer.

ROSS Intelligence, the company that built the robot, began from research at the University of Toronto in 2014, with the goal of building an artificial intelligence legal research assistant to allow lawyers to enhance and scale their abilities. Just 10 months after they began teaching ROSS bankruptcy law, the company is commercialising its first offering.

The Statesman
17 May, 2016

Ancient night sky recreated to date 2,500 yr-old Greek poem

Scientists have recreated the ancient night sky over Greece by using advanced astronomical software to accurately date lyric poet Sappho's 2,500-year-old 'Midnight Poem'.

Sappho's 'Midnight Poem' describes a star cluster known as the Pleiades having set at around midnight, when supposedly observed by her from the Greek island of Lesbos.

"Estimations had been made for the timing of this poem in the past, but we were able to scientifically confirm the season that corresponds to her specific descriptions of the night sky in the year 570 BC," said lead author Manfred Cuntz, professor at the University of Texas at Arlington (UTA).

The researchers used advanced software called Starry Night, to identify the earliest date that the Pleiades would have set at midnight or earlier in local time in 570 BC.

The Planetarium system Digistar 5 also allows creating the night sky of ancient Greece for Sappho's place and time.

"Use of Planetarium software permits us to simulate the night sky more accurately on any date, past or future, at any location," said Levent Gurdemir, director of the Planetarium at UTA.

"This is an example of how we are opening up the Planetarium to research into disciplines beyond astronomy, including geosciences, biology, chemistry, art, literature, architecture, history and even medicine," said Gurdemir.

The Starry Night software demonstrated that in 570 BC, the Pleiades set at midnight on January 25, which would be the earliest date that the poem could relate to.

As the year progressed, the Pleiades set progressively earlier.

"The timing question is complex as at that time they did not have accurate mechanical clocks as we do, only perhaps water clocks," said Cuntz.

"For that reason, we also identified the latest date on which the Pleiades would have been visible to Sappho from that location on different dates some time during the evening," he said.

Researchers found that the last date that the Pleiades would have been seen at the end of astronomical twilight - the moment when the Sun's altitude is minus 18 degrees and the sky is regarded as perfectly dark - was March 31.

"From there, we were able to accurately seasonally date this poem to mid-winter and early spring, scientifically confirming earlier estimations by other scholars," Cuntz said.

Sappho was the leading female poet of her time and closely rivalled Homer. Her interest in astronomy was not restricted to the "Midnight Poem." Other examples of her work make references to the Sun, the Moon, and planet Venus.

"Sappho should be considered an informal contributor to early Greek astronomy as well as to Greek society at large," Cuntz said.

"Not many ancient poets comment on astronomical observations as clearly as she does," he said.

The study was published in the Journal of Astronomical History and Heritage.

PLANE AND SIMPLE



A start-up firm is developing the world's first ultralight personal electric plane that can be powered from a wall socket and take-off and land vertically even from back gardens

SAFER OPTION

The two-seater, entirely electric plane, uses ducted fans, which makes it much simpler, quieter and safer than conventional helicopters

THE GOAL

"Our goal is to develop an aircraft for use in everyday life. We are going for a plane that does not need the complex and expensive

infrastructure of an airport," said Daniel Wiegand, CEO of Lilium, the company hosted in a European Space Agency (ESA) business incubator

LAUNCH DATE

Highly efficient in its cruising mode, the plane will be on sale by 2018

COST

The retail cost will be far

less than that of similar-sized aircraft of today. It will have much lower running costs too, the ESA said in a statement

TESTING

The half-size prototype is already being tested. The full-size unmanned prototype has been planned for this summer, the company said

FEATURES

It features a touchscreen and fly-by-wire joystick controls, retractable landing gear, wing doors, large storage, panoramic windows and a battery that can be recharged from any wall plug



STEERING

Easy to fly (Fully computer-assisted control system)



NUMBER OF PASSENGERS

2



MAXIMUM TAKE-OFF WEIGHT

600 kg



PAYLOAD

200 kg



CRUISING VELOCITY

300 km/h



MAX. VELOCITY

400 km/h



RANGE

500 km



POWER

320 kW

Intellectual Property Rights: New policy may power R&D, national growth

By Anil Sasi

The announcement of the new IPR policy has been a much sought after reform considering the unfavourable regulatory environment prevalent in the country. The new policy is expected to encourage the IPR regime, making it more efficient.

At last count, a total of 2.37 lakh patent applications and over 5.44 lakh trademark registrations were deemed as pending, some of these hanging fire for years. The main reason for these pendency figures (updated March 10, 2016) has been attributed to the shortage of manpower in the country's intellectual property offices. The unclogging of the pendency and quality examination are at the heart of improving the robustness of India's Intellectual Property Rights (IPR) system, something that the government has moved towards by announcing the country's first IPR policy.

The new National Intellectual Property Rights policy seeks to put in place a legal framework that will encourage the IPR regime and reduce the time taken by the government to approve a trademark to a month by 2017. Currently, the process takes more than 12 months on an average. The policy, approved by the Cabinet last Thursday, nominates the Department of Industrial Policy and Promotion (DIPP) as the nodal agency for regulating intellectual property rights in the country.

For those in industry, the government's move to streamline the IP related laws under a single department is a big positive, considering that this will help in streamlining of the intellectual property framework in the country. As of 2014, India's spend on research and development (0.8 per cent of GDP) significantly lagged global counterparts such as China (1.9 per cent), Korea (3.8 per cent) and the US (2.7 per cent). In 2015, India ranked a dismal 29th out of 30 countries in the International IP Index released by the Global Intellectual Property Center of the US Chamber of Commerce, a ranking that measures the overall IP environment in a country. China was ranked 19th in the same list.

A major factor behind the lag in India's country-level performance over global counterparts, according to a January 2016 PwC-Assocham study on 'Innovation-driven growth in India', has been the lacklustre performance of its enterprises. For instance, India has just five companies among the leading 500 brands worldwide, while China has 32. In terms of creating global businesses, only three Indian firms were listed on the NYSE International 100 Index as of 2013, as compared to 22 Canadian firms and 16 from the UK.

The IP issue is even more compelling in the context of the state of India's SME (small and medium enterprises) sector, which employ 40 per cent of India's overall workforce but contribute only 17 per cent to the nation's GDP. This is mainly due to an unfavourable regulatory environment, marked by the need for multiple procedures and high paid-in capital to start a new business, according to PwC. As a result, a whopping 94 per cent of SMEs are currently unregistered, which leaves them struggling with issues such as shortage of skilled workers, limited market exposure and restricted access to capital. Of the total number of SMEs, only 0.2 per cent are medium-sized firms, employing between 100 and 1,000 people. The lack of access to funds results in limited technology adoption within these firms, leading to system inefficiencies that lower national productivity. On the other hand, the German Mittelstand (GM), comprising SMEs is an example that highlights the potential within this segment to contribute to national growth. GM firms account for almost 60 per cent of the employment within Germany and contribute more than 50 per cent to the national economic output.

In India too, there are exceptions. The Indian telecom industry, for example, has leapfrogged to mobile telephony, skipping fixed-line technology and within a space of 20 years (1995-2014), the sector recorded 910 million mobile-phone subscriptions —18 times the number of landline connections in 2006 (50 million), the year when landline subscriptions reached their peak.

In India, these innovations, according to the PwC paper, could be categorised into three broad categories:

* Technology-driven innovation, which involves the development of new advanced technology systems, such as the Aadhaar platform, Bajaj Auto’s DTS-i technology or Vortex Engineering’s solar powered ATMs.

* Market-driven innovation, which includes products that create innovative value propositions for new customer segments. Examples include Tata Ace one-tonne commercial vehicles and GE India’s low-cost ECG machines.

* Operations-driven innovation, which includes innovations in processes achieved by adopting cost-efficient practices or by creating new supply and distribution channels, Examples include companies such as the Narayana Health Group and Aravind Eye Hospital that have lowered the cost of heart and eye surgeries through operational efficiencies achieved from volume-driven business models.

The objectives of the government’s new IPR policy, officials said, focus on strengthening the legal and legislative framework of IPRs, their commercialisation; and reinforcing the enforcement and adjudicatory mechanisms for IPR infringements.

This has been a work in progress. In the run up to the policy, the government has sanctioned 481 additional posts in the office of Controller General of Patents Designs and Trademarks under the Twelfth Plan as part of the Plan Scheme for Modernisation and Strengthening of Intellectual Property Offices. The selection process to fill up 458 vacant posts of Examiners of Patents and Designs has already been completed and the approval of competent authority for appointment to these posts has been accorded, officials said. Besides, as a short-time measure, 263 contractual posts of Examiners of Patents and Designs and 100 contractual posts of Trademarks Examiners have also been created.

Incidentally, India’s IPR policy comes at a time when developed economies are trying to force it to put in place even stronger IPR frameworks through mega-regional trade agreements, including the WTO’s agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). In April, the US Trade Representative kept India, China and Russia on its “Priority Watch List” for inadequate improvement in IPR protection.

According to the government, the new policy will try to safeguard the interests of rights owners keeping in mind the wider public interest while combating infringements of IPRs. Finance minister Arun Jaitley, while announcing the new policy, said that the country would retain the right to issue so-called compulsory licences to its drug firms, under “emergency” conditions, and would not immediately need to change patent laws that were already fully WTO-compliant. “Compulsory licences are already provided in our patent law. That existing provision will continue,” Jaitley said. Compulsory licences enable a domestic drug manufacturer to produce patented drugs that are not available to the public at a reasonable price.

An IP policy with no innovation

By Shammad Basheer

Intellectual property accelerates innovation in certain technology sectors, but it impedes innovation in others. The biggest flaw of the new policy is that it does not acknowledge this.

Intellectual property (IP) regimes suffer a classic paradox. While they attempt to encourage innovation and creativity, they have themselves been shielded from innovation experimentation. For some years now, India has been attempting to break this mould and craft a regime to suit its own distinctive set of concerns. Section 3(d) of the Patents Act, 1970, was a bold attempt in this direction, aimed at eradicating “evergreen” drug patents.

Sadly, this distinct attempt at diversifying a problematic global IP script is slowly yielding to larger market forces. It is reinforcing a realpolitik predicated to a large extent on various campaign contributions flooding the coffers of candidates striving to lead the most powerful democracy of the world, namely the U.S.

Flawed foundation

Enter India’s recently unleashed IP policy into this new political fray — one that, at best, repeats ad nauseam the various platitudinous phrases around intellectual property. That it is meant to foster innovation and creativity. That it must be balanced against public interest and public health. And that the Agreement on Trade-Related Aspects of Intellectual Property Rights or TRIPS is the benchmark and that India is compliant with relevant international norms.

And yet, at worst, the policy represents an extreme excess in terms of its one-sided view of IP as an end in itself. And therein lies the greatest flaw. The policy fails to situate IP within the larger context of the innovation ecosystem, refusing to acknowledge that while IP could accelerate innovation in certain technology sectors, it impedes innovation in others. This is a truth touted not only by those labelled as left-liberal ideologues, but powerful industry giants facing the brunt of a promiscuous patent regime — renowned giants such as Tesla’s Elon Musk who have either eschewed patents or dedicated them to the public domain.

And yet the entire edifice of the present IP policy is built on this flawed foundation equating more IP with more innovation. The policy sounds almost militant when it proposes that despite our ancient “laudable” heritage where knowledge was freely and extensively shared, we must now make amends and convert each piece of our knowledge into an IP asset. This flawed frame results in a number of problematic assertions in the text of the policy.

It advocates that publicly funded scientists and professors must compulsorily convert all of their discoveries into IP assets, much before they have even written this up and published it in reputed science journals — and that their promotions be predicated on the number of IP applications made. A hark back to the past would reveal that visionary scientists such as Benjamin Franklin and, closer home, our own J.C. Bose shunned patents owing to their potential to curb the free flow of knowledge. We must encourage a plurality of approaches when it comes to IP and innovation; our scientists should be free to take this call on whether or not they wish to register IP. Doing so for the mere sake of it is stupid, quite apart from the fact that on an empirical cost-benefit analysis, most U.S. universities lose more money on IP registrations than they make through IP royalties.

The policy needs to be commended for taking note of our “informal” (rural) economy and the need to encourage the prolific creativity found within. Unfortunately, far from understanding the drivers of creativity and the modes of appropriation/sharing in this “shadow” economy, the policy leans towards the superimposition of a formal IP framework on this marginalised sector.

Lastly, much in line with its powerful IP rights-centric approach, the policy recommends that the unauthorised copying of movies be criminalised. No doubt Bollywood requires some protection from pirates, but criminalising what is essentially a civil wrong (much like defamation) is tantamount to killing an ant with an elephant gun, not to mention the potential for abuse at the hands of our police.

A short-sighted policy

Indeed, the present policy could well be the classic poster child for IP formalism. We had expressed caution against such a reductionist view in the first draft of the IP policy formulated by a think tank (of which I was part). Unfortunately the government unceremoniously disbanded our committee after we submitted the policy and disregarded our exhortation to conceive of the policy as a more broad-based and holistic Innovation Policy.

Granted, India is lagging on several counts. When compared with its glorious past boasting pioneering innovations from the likes of Sushruta (the father of modern surgery) and Nagarjuna (metallurgy), India has hardly had any noticeable technological marvels in its recent history.

But is the problem with the country's IP regime? Or does the malaise lie elsewhere? Could it be cultural, where parents put undue pressure on their children for that fat salaried job, as opposed to a risky entrepreneurial venture? The policy advocates that IP be taught in schools and colleges. But why? What we need in schools and colleges are courses on creativity, not on IP. Even if we lack resources to impart specific courses on creativity, let's at least ensure that we don't stand in the way of a natural flowering of creativity in our children. A truth tellingly captured by Mark Twain's sentiment: "I have never let my schooling interfere with my education." And one that is now being controversially tested by Peter Thiel (PayPal's legendary founder) who pays college students to drop out of college and run risky ventures.

Unfortunately, notwithstanding some of its praiseworthy proposals, such as expedited examination, an IP exchange and the proposal to encourage Corporate Social Responsibility funds into open innovation, this much-awaited IP policy is terribly short-sighted.

Many decades ago, a two-member committee (headed by Justice N.R. Ayyangar) conceptualised a patent policy that formed the blueprint of the present patent regime. It was one that triggered the remarkable growth of our pharmaceutical industry, enabling it to earn the moniker "pharmacy of the world". It was a policy that was thoroughly researched, empirically validated and elegantly written in a little over a year.

Compare and contrast that with the present policy that took more than two years and two separate think tanks to come to fruition. One beset with banality, dogged by dogma, rife with ridiculous assertions, lacking in any credible empirical support, and written in language that, at best, mimics a masterful memo from one babu to another.

I began with a paradox. Let me end with one. While proudly proclaiming the slogan "Creative India, Innovative India", the policy states: "There is an abundance of creative and innovative energies flowing in India." A sheer pity that none of that abundant creative energy made it to this policy document, rendering it rather dreary.

Shamnad Basheer is the Honorary Research Professor of Intellectual Property Law at Nirma University and the founder of SpicyIP.

India's IPR regime not regressive

IPR Policy will promote indigenous knowledge on water conservation steps.

The National Intellectual Property Rights (IPR) Policy will send a clear message to Washington that India's IPR regime is not regressive, Commerce & Industry Minister Nirmala Sitharaman said.

The comments come ahead of Prime Minister Narendra Modi's visit to the U.S. next month when the issue of greater protection and enforcement of IPR may come up for discussions.

Sitharaman, however, said India does not recognise "unilateral measures" such as the U.S. Special 301 Report that tries to create pressure on countries to enhance IPR protection beyond the World Trade Organisation's Agreement on Trade-Related Aspects of IPRs (TRIPS).

The Special 301 Report — a review of IPR regimes of U.S trading partners — had retained India on the 'Priority Watch List' in 2016 for not addressing "long-standing and systemic deficiencies in its (India's) IPR regime."

Greater clarity

The IPR Policy, announced ahead of Modi's visit, has brought greater clarity on India's stance on IPR issues," she said. "Any patent holder anywhere in the world need not fear that India's IPR policy is regressive.

This policy will build on the interest for innovation and Research & Development."

At the same time India will not undertake commitments beyond TRIPS. Though U.S. concerns on India's IPR regime include "rejections" of patent applications for innovative pharmaceutical products due to "unpredictable" application of Section 3(d) of (Indian) Patents Act, Finance Minister Arun Jaitley had also said that the IPR Policy will ensure that no changes are made in that Section (which prevents ever-greening of drug patents) as well as the patent-disabling Compulsory Licensing (CL).

Compulsory licensing and norms similar to Section 3(d) are among the flexibilities available in international treaties and TRIPS Agreement to ensure availability of essential and life-saving drugs at affordable prices.

Indigenous knowledge

On other issues, Sitharaman said the IPR Policy will promote India's indigenous knowledge on water conservation measures — a point raised by Water Resources Minister Uma Bharti in the cabinet meeting.

The Policy will also promote ayurveda, yoga, naturopathy, unani, siddha and homoeopathy, she said. But it has not included the concept of 'utility patents' -- a model less stringent than for patents.

Copyright violations

Citing instances of several copyright violations (of movies and music) in states like Tamil Nadu and Maharashtra known for entertainment business, Sitharaman said the Centre will work with states for better protection and enforcement of copyrights The Centre will hold roadshows to promote the IPR policy.

The Minister said in certain aspects of addressing issues on e-commerce (tax issues affecting the States) and cyber crime, India was superior to even the U.S.