

# समाचार पत्रों से चयित अंश Newspapers Clippings

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## National Def Varsity Project on Fast Track

*By Rahul Dutta*

Seven years after it was conceived, the Government does not want to further delay the ambitious Indian National Defence University (INDU) project. Aiming to ensure that it is operational by next year, the Government plans to table the Bill in this regard in the Winter Session of Parliament starting on December 15.

Headed by a three-star general, INDU will be a teaching and affiliating university for the existing training institutions of the three Services like the National Defence Academy (NDA).

The objective of this first of its kind institution is to promote strategic thinking, with civilians and Defence personnel eligible to take admission.

The land acquisition process for the university, to be spread over 205 acres and headquartered in Gurugram, is in progress and infrastructure facilities have been partially constructed. While the entire construction will take time, to begin with, the university of national importance will function on ad-hoc basis in New Delhi.

The Union Cabinet had approved the setting up such a university in 2010. The then Prime Minister, Manmohan Singh, laid the foundation stone of the campus on May 22, 2013. While the idea of such an autonomous institution first came up in 1967, the proposal gathered momentum after Kargil Review Committee recommended having a university to exclusively study Defence and strategic issues.

Moreover, the panel also suggested courses designed to promote expertise among military and civilian officers in higher Defence management for overarching policy formulation for internal and external security issues. The selected candidates shall also be thoroughly briefed and trained to deal with emerging security challenges besides informing them about fast changing war fighting doctrines across the world, the Review Committee proposed.

The panel headed by late K Subrahmanyam, a noted Defence expert and former Defence Secretary, to suggest reforms in Defence management was set up in the wake of Kargil war in 1999. It covered the entire gamut of security issues, including border management, integration of various Intelligence agencies, response to external threat, strategic policy formulation and synergy among all stakeholders handling security. The committee submitted its report to a Group of Ministers (GOMs) chaired by then Home Minister LK Advani in 2001.

The much delayed and awaited university will be instituted by an Act of Parliament after both the Lok Sabha and the Rajya Sabha pass it. The President of India will be the Visitor and Defence Minister the Chancellor of the university.

As the construction of the campus is on and will take time for completion, the university after getting Parliament approval, will function on an ad-hoc basis from New Delhi, sources said here on Saturday.

The university will enroll at least 66 per cent of candidates from the armed forces while the remaining 33 per cent of students will comprise civilians besides personnel from police and para-military forces.

To be governed by its own norms, the autonomous institution will be affiliated with National Defence College, New Delhi, National Defence Academy, Khadakvasala, Defence Services Staff College(DSSC), Wellington and College of Defence Management(CDM), Secunderabad.

The curriculum is structured to enhance co-ordination and interaction between armed forces and non-armed forces institutions. The proposed university will offer post-graduate studies apart from doctoral and post-doctoral research. It will also promote higher studies through distance learning to military and civilians.

As regards the teaching faculty, it will have a mix of military personnel and civilians in the ratio of 1:1 and officials said the university will function on the lines of prestigious Indian Institute of Technology (IIT) and Indian Institute of Management (IIM).

The university will have constituent units namely the School of National Security Studies, the School of Defence Technology, the School of Defence Management, the Centre for Distance and Open Learning with regional centres of distance learning. It will also educate national security leaders on aspects of national security strategy, national military strategy and national information strategy by way of teaching and exhaustive research.



Mon, 11 Dec, 2017

## Mi-8's saga comes to an end

*By Pankaja Srinivasan*

*The IAF is phasing out the Mi-8 helicopters*

“It was probably the aircraft that was shot at the most,” says Air Marshal P.P. Rajkumar about the Mi-8 helicopter. He has logged more than 3,000 hours on the aircraft and has no hesitation in declaring that the most-produced helicopter in the world is a colossus.

The Mi-8 covered itself in glory and bullet wounds in the Siachen, during the IPKF operations in Sri Lanka and a UN Mission in Congo, besides coming under fire from insurgents in the North East. It has been part of several scientific expeditions to Antarctica. Now it is being phased out.

“The emotional bond we forged with the Mi-8 (also called Pratap in the IAF) was strong. Most of us started flying it in our 20s and probably associated more with the helicopter than with anyone else,” says Rajkumar. He knows engineers who remember the numbers of the aircraft they worked on even today long after they have forgotten their colleagues’ names.

### **Arrived in crates**

The Mi-8s were inducted into the IAF in 1972 when they arrived in crates from erstwhile USSR to Mumbai where they were assembled and test-flown by Russian and Indian teams before being despatched to their first unit in Assam. Having the Russians service the aircraft was an expensive business and soon IAF personnel took over its complete maintenance. Air Vice Marshal R. Somnath, an engineer who has worked with the Mi-8 for decades, proudly says, “Our engineers were second to none. They primped and primed the aircraft for its sorties – flood relief, military operations or VVIP movement.”

Somnath recalls how two Mi-8s were modified and made ready for the Shimla Agreement in 1972. One was to fly President Zulfikar Ali Bhutto of Pakistan and his daughter Benazir Bhutto, and the other Prime Minister Indira Gandhi. The original purely functional bucket seats were replaced with fancier seats re-appropriated from the L-1049 Super Constellation. “The Super Constellations were lying with Air India and they were only too happy to hand over eight seats to us,” says Somnath. The seats were installed in the Mi-8s after careful and crucial modifications and the VVIPs made that 20-minute flight from Chandigarh to Shimla and back in comfort!

Air Commodore RM Sridharan, who has flown many VIPs including Pope John Paul II (who gifted him with a rosary and blessed him), Margaret Thatcher during the CHOGM retreat at Goa, recalls his last trip with Indira Gandhi. It was on October 30, 1984, during a tour of Orissa. “From Gopalpur, we flew her to Bhubaneswar airport. The following morning as we were ferrying the Mi-8 back to Delhi we heard of her assassination!” On landing at Delhi, Sridharan was detailed to be in the funeral parade. “Days after I had flown her, I walked 15 km on her funeral route.”

Former Air Chief Fali Major was a founding member of the VVIP Helicopter Flight in Palam, Delhi, from where the Mi-8s flew only VVIPs. He calls the Mi-8 ‘iconic’ and, like most other Mi-8 Air Warriors, also describes it as ‘forgiving’. “We were in Kashmir valley. We had already flown several sorties from a place called Gurez to various forward posts. We wouldn’t switch off between each sortie but in our third or fourth landing at Gurez, we noticed the ground crew gesticulating frantically to us to switch off. Not very pleased, we did; only to find out that, instead of turbine fuel, our helicopter was flying on high-octane fuel!” Major says he also has the dubious distinction of being involved in the first Mi-8 accident in Chalunka, Ladakh. “Instead of four cross bolts, only two anchored the rotor to the helicopter fuselage that had already flown over 350 hours before they sheared off on that fateful day!”

### **Engineering marvel**

For Group Captain Ravi Kumar, an engineer, an incident that stands out in his memory is a weekend at Yelahanka, Bengaluru. “An Mi-8 was returning to base from an assignment and, to our horror, we saw its left main wheel was missing as it approached for landing. It must have dropped off mid-flight! We took a snap decision to do something perhaps never done before; we fixed the wheel on the helicopter even as it hovered and the Mi-8 landed, safely!” Ravi Kumar calls the Mi-8 an engineering marvel, robust and simple in design and technology.

### **Thousands of sorties**

The helicopter has flown thousands of sorties during natural calamities and Wing Commander Yella Reddy was one of the pilots who scrambled on receiving news that a bus had been swept into a river 60 km north of Cudappah at a place called Chagalamarri. The water had flooded the bus and its 65 occupants had clambered on to its roof where they spent the night.

“We began operations and, with the weather, fuel and the setting sun stacked against us, we began winching up the stranded. We knew that the passengers had to be pulled to safety as they would not survive another night on the bus rooftop. In between dashing back to Cudappah for refuelling we rescued them all, well after the sun had set. The solid Mi-8 made this possible.”

R.K. Sharma, the Commanding Officer of 112 HU in Yelahanka, was not even born when the magnificent machine was inducted into the IAF and he says, “It is emotional for me. As a rookie pilot, I was trained in this helicopter and now I will go down in IAF History as I fly it for one last time.”

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*Mon, 11 Dec, 2017*

## **Another Step towards Strategic Heft**

India’s inclusion in the Wassenaar Arrangement (WA) is welcome. India now becomes the 42nd country to join this multilateral export-control regime on conventional weapons and dual-use technologies. A follow-through of the Indo-US nuclear deal of 2008, as was India’s membership of the Missile Technology Control Regime, WA membership will help enhance India’s strategic capability.

It will put an end to denying Indian industry access to certain kinds of high technology on grounds of their military use. India’s acceptance into WA also underscores the incongruity of Beijing’s obstructionist stance towards India’s full membership of the Nuclear Suppliers’ Group.

WA membership is recognition of India’s non-proliferation track record, despite not being a signatory to the Non-Proliferation Treaty (NPT). With this, India is a member of two of the four export control regimes and quasimember of the Nuclear Suppliers’ Group. The Australia Group on chemical and biological weapons is the fourth technology watchdog, whose formal approval India has to secure.

The WA membership is also expected to build up a strong case for India's entry into the 48-member Nuclear Suppliers' Group. China, which has been stonewalling India's Nuclear Suppliers' Group entry, is not a member of the Wassenaar Arrangement, although it has committed to follow its guidelines. China applied to join the Missile Technology Control Regime in 2004 but could not secure it, although China has agreed to abide by its guidelines.

The other takeaway from this development is India's strong relationships with the US, Russia and France, which played a significant role in India's WA membership. It cements the positive approach that these countries have had towards India, and their expectation that India would be a balancing force in Asia.

## Business Standard

Mon, 11 Dec, 2017

# India is a US defence partner on a par with NATO allies: Keith Webster

*India's status is consistent with members of NATO, other than the Five Eyes, says Pentagon official*

*By Ajai Shukla*

Keith Webster handled US-India defence relations for several years as a senior Pentagon official in the Obama administration. Now, a senior vice-president with the US-India Strategic Partnership Forum, he talks to *Ajai Shukla* about the trajectory of the defence relationship.

### **Why has the US designated India as a “major defence partner” (MDF)?**

In the US system, this was a very significant step. In May 2016, during the waning months of former President Barack Obama's administration, we began debating in the Pentagon the need to cement the solid defence relationship we had achieved. We decided the best way to “immortalise” the relationship was to bring in the term “major defence partner” (MDP) into the June 2016 joint statement between Prime Minister Narendra Modi and President Obama.

We proposed the MDP designation, and the Modi government accepted putting it into the Modi-Obama joint statement.

Late in 2016, there was a short exchange of letters between US Secretary of Defence Ash Carter and Defence Minister Manohar Parrikar on what MDP broadly meant. And then, MDP was mentioned in our National Defense Authorisation Act of 2017, signed by Barack Obama in December 2016. That means the legislation is in place on the US side.

### **What does MDP mean in practical terms for India?**

While both governments have acknowledged MDP, we need to see how India defines it. When Secretary Jim Mattis returned from India in September, he said: “We need to work on this definition of MDP.” I spoke to Secretary Tillerson about this when he was here in October. So the Trump administration will flesh this out with the Modi government: what exactly will MDP be?

### **As a MDP, where does India stand in the hierarchy of US defence partners?**

The US has a pyramid of trust, based on which we part with military capabilities and technologies. Naturally, the best goes to the US military alone. Next, at the top of the pyramid are the allies that fight alongside us the most. That would be the “Five Eyes” an intelligence-sharing alliance between the US, UK, Canada, Australia and New Zealand. One level below are the other allies who fight alongside us, which comprises NATO —“Old NATO”, as opposed to “New NATO”.

India hasn't figured in that pyramid of trust because we never fought as allies. But, we are now friends. So, we have moved India up, policy-wise, to near the top of the pyramid. Not to the pinnacle, but near the top of the pyramid.

### **Below the Five Eyes, but at par with older NATO members?**

India's status is consistent with members of NATO, other than the Five Eyes.

### **What about the category of "major non-NATO allies" (MNNA), which the US has designated Pakistan?**

That status was unacceptable to India because there are 15-16 nations in that category, including Pakistan. We needed to do something unique for India, which is more than what we've done for Pakistan.

### **Why would India accept that its designation is above Pakistan's in the hierarchy of allies?**

Because our actions will prove it. Look at the F-16, the Block 70 as we call it now. That is well above your neighbour's F-16s. What we are proposing for India, reflects its status... I don't believe Pakistan would be sold the F-16 Block 70.

### **What benefits does MDP provide India?**

First, in transferring defence capabilities, India will be on par with NATO allies. Second, when we talk about "Make in India", we can now transfer more critical technologies to Indian industries than without MDP categorisation.

### **Delhi worries that the Trump administration will be more transactional and focused on defence sales rather than a technology partnership...**

In February this year, I too wondered: How do we reconcile "Make America Great Again" and "Make in India"? The good news is the Trump administration has reconciled that, specific to India. It fully backs everything the Obama administration proposed to India, including the exhaustive preparatory work been done on F-16 and F/A-18 "Make in India".

The Heritage Foundation, which is close to the Trump administration, wrote on why it makes sense to support "Make in India" on the F-16, even though much of the supply would shift to India. The argument was: "An F-16 line in India is better than shutting it down. If an Indian line keeps 20 American suppliers in business, that's better than zero."

### **Over the last decade, the US has concluded a wave of arms sales worth over \$15 billion. What do you think the next wave will consist of?**

Hopefully, the F-16 and F/A-18. Realistically, even one of those would be huge. It would be a huge symbolic gesture of trust.

A fighter aircraft is a power projection capability. Transport aircraft and helicopters are great, but to take that next step — to trust America or not to supply a power projection platform — and have the confidence that the US would be there through its service life, it would be hugely symbolic.

### **Would there be negative repercussions if India chose not to buy a US fighter?**

Not really, but there would be a huge disappointment. In the Pentagon I spent 30 per cent of my time on India, much of it pre-positioning the government approvals needed for making the F-16 and F/A-18 in India. We don't normally do that. We normally require governments to request for a weapons platform and then we make the release decisions.

### **Would you call the Quadrilateral a step towards an alliance?**

I think it's huge. This was discussed for the past three-four years, and the fact that the Indian government has allowed this to be publicly discussed, no matter how it's presented, it is a huge step for me.

## **US defence firms want security of classified info for JVS in India**

Leading US Defence firms are pushing for a specific framework in India to ensure the safety and security of critical technology and classified defence information when they are shared with the private sector for joint ventures in the country.

A top official of the US-India Business Council (USIBC) said they also want a Government-to-Government agreement to facilitate the transfer of classified defence technology and information to the Indian private sector besides clarity on issues relating to liability, intellectual property rights and industrial safety.

Benjamin Schwartz, senior director for Defense and Aerospace at the Washington-based USIBC, said there was no provision for sharing classified defence information by American companies with the Indian private sector at present and a Government-to-Government agreement was necessary to facilitate it.

“US companies are willing to ensure transfer of critical technology to India but the Indian Government has to ensure protection of critical and classified technology,” he told PTI in an interview.

Schwartz, who held extensive talks with the defence establishment here on several sticky issues during a visit to India, said under the existing framework, American companies can share classified information and technology with India’s defence public sector undertakings (DPSUs) and not with the private sector.

“Right now, there is no mechanism in place to allow the US companies to extend classified information to private Indian industries,” he said, adding it was for New Delhi to initiate the process for a government-to-government agreement to remove the hurdle.

The USIBC has been playing a pro-active role in forging greater collaboration between Indian and American defence industries.

Holding that the American industry was very supportive of India’s strategic partnership model, he said the Indian government needed to come out with a timeline for various acquisition programmes, besides establishing a framework for the safety of classified information and technology.

“They need to establish procedures to ensure security of defence technology here. What I mean by it is that the reality in India and also in the US and around the world is that information is being stolen ... We have to set up procedures to make sure that our defence technology is secure (in India),” he said.

Schwartz said Washington “definitely” wanted to go for an agreement to facilitate the transfer of classified information and technology by American companies to India and that “it is about getting things done in New Delhi.”

He said the American private defence industry was in touch with the Trump administration on the issue of technology transfer to India and the US government has been very supportive of such collaborations.

“We held extensive conversations with the US government on technology transfer. We are very pleased that there has been a lot of continuity in US policy. The Trump administration wants to continue to prioritise technology release to India. It is also going to be re-articulated in US law this year,” he said.

Schwartz said the USIBC supports Modi government’s policy initiative to ensure a level playing field for the DPSUs and India’s private sector defence industry.

“We can help support this through an agreement that will allow us to share classified information with the private sector industry,” he said.

A number of American defence giants including Boeing and Lockheed Martin are eyeing billions of dollars of contracts in India and have already offered to manufacture some of their key military platforms in India while forging joint ventures with Indian companies.

## **US, South Korea and Japan to Hold Missile Tracking Drills**

Tokyo: The United States, Japan and South Korea will hold two days of missile tracking drills starting on Monday, Japan's Maritime Self-Defence Force said, as tensions rise in the region over North Korea's fast-developing weapons programmes.

The United States and South Korea conducted large-scale military drills last week, which the North said made the outbreak of war "an established fact".

North Korea has fired missiles over Japan as it pursues nuclear weapons and ballistic missiles in defiance of UN sanctions and international condemnation. On November 29, it test-fired an intercontinental ballistic missile which it said was its most advanced yet, capable of reaching the mainland United States.

This week's exercises will be the sixth drills sharing information in tracking ballistic missiles among the three nations, the defence force said.

It did not say whether the controversial THAAD system would be involved. The installation of the US Terminal High Altitude Area Defense system in South Korea has angered China, which fears its powerful radar could look deep into China and threaten its own security.

North Korea's missile test last month prompted a US warning that North Korea's leadership would be "utterly destroyed" if war were to break out. The Pentagon has mounted repeated shows of force after North Korean tests.

The United States has also pressured China and other nations to cut trade and diplomatic ties with North Korea, as part of international efforts to dry up Pyongyang's illegal cash flows that could fund its weapons programmes.

On Sunday, South Korea said it would impose new unilateral sanctions on 20 institutions and a dozen individuals in North Korea, barring any financial transactions between those sanctioned and any South Koreans.

"This unilateral sanction will prevent illegal funds flowing to North Korea and contribute to reinforce international communities' sanctions against North Korea," South Korea's finance ministry said in a statement.

The move is largely symbolic as trade and financial exchanges between the two Koreas have been barred since May 2010 following the torpedoing of a South Korean warship, which the North denied.

Japanese Defence Minister Itsunori Onodera said the ministry plans to include 730 million yen (\$6.4 million) to help build a new missile interceptor system, the Aegis Ashore, in its next fiscal year budget request, public broadcaster NHK reported. Reuters



## **Maritime Blockade Would Be Declaration of War: N. Korea**

North Korea on Sunday said that a maritime blockade would be a declaration of war, in reference to one of the new sanctions that the US mentioned it could impose on Pyongyang after its latest ballistic missile launch.

"The US moves for sea blockade can never be tolerated as they constitute a wanton violation of the sovereignty and dignity of an independent state," an article published in the state-owned Rodong Sinmun daily said.

"The US is trying to openly take the measure of sea blockade against North Korea and strangle its economy in peace time. This is part of its scheme to escalate political and economic blockade against North Korea which has lasted for decades."

The article said international treaties establish that the economic blockade of a country in times of peace constitutes an illegal act and is considered an invasion, reports Efe news.

The new sanctions promoted by Washington, combined with the joint air drills with South Korea - the largest to date - conducted on the Korean peninsula last week, constitute "hideous war criminal acts" to push the situation to an "uncontrollable" catastrophic phase and to a touch-and-go phase of a war, Pyongyang said.

The article warned US President Donald Trump that "should they show even the slightest movement to put its attempt at sea blockade into practice, it will be followed by an immediate and merciless counteraction for self-defence from the North Korea".

On November 29, North Korea launched the Hwasong-15, its most advanced intercontinental ballistic missile to date, which has put Pyongyang closer to being able to target the continental US.

As a result, Washington has defended imposing new sanctions on Pyongyang, which could include the total prohibition of maritime transport to North Korea, according to US Secretary of State, Rex Tillerson



Mon, 11 Dec, 2017

## **NASA explores artificial intelligence for space communications**

*Cognitive radio, the infusion of artificial intelligence into space communications networks, could meet demand and increase efficiency.*

NASA scientists are planning to use artificial intelligence to better manage the increasing communications between its spacecraft and the Earth. NASA spacecraft typically rely on human-controlled radio systems to communicate with Earth. Cognitive radio, the infusion of artificial intelligence into space communications networks, could meet demand and increase efficiency, researchers said.

"Modern space communications systems use complex software to support science and exploration missions," said Janette C Briones, from the NASA's Glenn Research Center in the US. "By applying artificial intelligence and machine learning, satellites control these systems seamlessly, making real-time decisions without awaiting instruction," said Briones.

Specific portions of the electromagnetic spectrum used for communications to various users. However, such channels are limited in number and can cause a bottleneck in the era of increasing communications.

Software-defined radios like cognitive radio use artificial intelligence to employ underutilised portions of the electromagnetic spectrum without human intervention.

These "white spaces" are currently unused, but already licensed, segments of the spectrum. A cognitive radio can use the frequency while unused by its primary user until the user becomes active again.

Cognitive radio switches from one white space to another, using electromagnetic spectrums as they become available.

"The recent development of cognitive technologies is a new thrust in the architecture of communications systems," said Briones.

"We envision these technologies will make our communications networks more efficient and resilient for missions exploring the depths of space," she said.

"By integrating artificial intelligence and cognitive radios into our networks, we will increase the efficiency, autonomy and reliability of space communications systems," she said.

For NASA, the space environment presents unique challenges that cognitive radio could mitigate. Space weather, electromagnetic radiation emitted by the sun and other celestial bodies, fills space with noise that can interrupt certain frequencies.

"Glenn Research Center is experimenting in creating cognitive radio applications capable of identifying and adapting to space weather," said Rigoberto Roche, from NASA.

"They would transmit outside the range of the interference or cancel distortions within the range using machine learning," said Roche.

In the future, a NASA cognitive radio could even learn to shut itself down temporarily to mitigate radiation damage during severe space weather events. Adaptive radio software could circumvent the harmful effects of space weather, increasing science and exploration data returns.