

# समाचार पत्रों से चयित अंश Newspapers Clippings

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## India has assured second-strike capability: Naval Chief, Admiral Sunil Lanba

By Manu Pabbi

The Rafale controversy will have no bearing on the Indian Navy's quest for 57 new fighter jets, said Chief of the Naval Staff Admiral Sunil Lanba. He said India is keeping an eye and "doing its bit" to tackle the increased Chinese presence in the Indian Ocean Region. Lanba spoke with Manu Pabby as 32 member-nations and observers of the Indian Ocean Naval Symposium gather in Kochi to mark its tenth anniversary. Excerpts:

### **How significant is the announced deterrence patrol of the INS Arihant nuclear missile submarine?**

The PM has said it all and the only thing that I can say is that we have now demonstrated the sea vectors capability by doing the deterrence patrol. Our nuclear policy is of 'no first use' and the deterrence patrol has demonstrated that you have an assured secondstrike capability.

### **There have been reports of increased Chinese presence in the Indian Ocean Region. How is this being countered by the Indian Navy?**

Operationally at sea, the mission-based deployments, which we have been doing for over a year, have ensured that the entry and exit routes of the Indian Ocean Region—the choke points—are all being monitored. We have permanent presence now in many parts including the Mallaca Strait, the Gulf of Aden and the Arabian Sea as well as the Bay of Bengal. So, our domain awareness has improved.

### **Have we been monitoring the presence of these assets in our region?**

All deployments of Peoples Liberation Army (Navy) ships and submarines are being monitored. They are always being welcomed by us when they enter the region, so we know what is happening. India does not have the deep pockets that China has—they have spent a lot of money on infrastructure, including ports that are economically unviable. We have seen their first overseas base in Djibouti and there has been a continuous deployment (in the Gulf of Aden) since 2008. The Indian government is working along with nations in the Indian Ocean Region, in Africa and in South Asia and there are a number of initiatives, from investments to line of credits. So, India as a nation is doing its bit.

### **A key part of the Indian Navy's plans to ensure presence in the region has been the quest for a third aircraft carrier. Are those plans still on track?**

The plan is still on track and we are working to take it forward to get inprinciple approval for a second aircraft carrier (after the under construction INS Vikrant at Kochi). We have decided the form and fit—it will be a 65,000 ton CATOBAR (catapult assisted take off but arrested landing) carrier and will be conventionally powered. It is central to the Navy's philosophy to have three aircraft carrier battle groups.

### **The Navy is also looking for 57 new fighter jets for its second aircraft carrier. Do you think the Rafale controversy will have a bearing towards this procurement?**

We should be able to issue the RFP (request for proposal) for this towards the end of 2019. And, I do not think that present occurrences should have any linkage to this at all.

### **The Navy has traditionally been at the forefront of 'Make in India' but the health of private sector shipyards has been a matter of concern. Is having the private sector sustainable, given the financial ill health of the Reliance Naval yard as well?**

Over 200 ships have already been built in India for the Navy, from sea wards defence ships to the aircraft carrier that is under construction. We opened the sector to the private industry but, unfortunately for us, the shipping industry world over collapsed post 2007-08. So, two of the yards have gone bust—Bharti and ABG. The present lot of private yards are having their own financial challenges but we are very keen that there is participation from both the public and private sector yards in our shipbuilding programmes. We need them so that we can build our capability at a much faster rate and I wish that Reliance can sort out its issues.

**On the strategic partnerships model for the private sector, how fast do you see the submarine programme progressing? Will Mazagon Dock and Shipbuilders Ltd (MDL) also be a part of the programme?**

The process itself has been approved and the specifics for the submarine segment have been drafted and will now come up for approval of the defence acquisition council. We are hopeful that the first among the strategic partnership programmes will be the Naval Utility Helicopters, for which we already have clearances. We are hopeful that the submarine segment will also get approved and we can take this forward. We would also like MDL to be one of the yards to be part of the submarine building programme as they have demonstrated capabilities.

**Can you share updates on the plan to build minesweepers in India, as well as the two frigates to be constructed at the Goa Shipyard Ltd (GSL)?**

We have signed a contract with Russia for two of the Project 11356 class frigates and we will now sign a contract with GSL for the balance two that are to be made in India. On the minesweepers, we think GSL should be able to issue a new expression of interest and we are hopeful that we will have a multi vendor situation this time.

<https://economictimes.indiatimes.com/news/defence/india-has-assured-second-strike-capability-chief-naval-admiral-sunil-lanba/printarticle/66611198.cms>



*Wed, 14 Nov 2018*

## **N. Korea hasn't given up nuclear weapons programme**

Washington, Nov 13 (IANS): North Korea continues to secretly develop its nuclear weapons programme despite months of talks with the US, according to a report released by a Washington-based think tank.

The Centre for Strategic and International Strategic Studies (CSIS) report released on Monday argues that, despite talks between US President Donald Trump and North Korean leader Kim Jong-un, Pyongyang is reinforcing thirteen secret facilities that serve primarily to store nuclear weapons, reports EFE News.

These improvements include the expansion of some of these bases and the construction of access roads. The report includes satellite photos that show that in recent months North Korea has carried out a number of improvements to a series of facilities that would "support a missile launch in an emergency".

This information is a setback for President Trump, who in recent months has boasted about the progress made after his summit with Kim in Singapore on June 12, which led, among other gestures, to the decommissioning of the Sohae missile base, in the northwest of the country in July. "North Korea's decommissioning of the Sohae satellite launch facility, while gaining much media attention, obscures the military threat to US forces and South Korea from this and other undeclared ballistic missile bases," CSIS said.

Kim agreed to abandon his nuclear program and was willing to be inspected by international organisations in exchange for the US to also make concessions.

However, in recent weeks, negotiations have cooled down as Pyongyang considers that it has already taken several steps but has not had the expected response from Washington, which has neither relaxed the sanctions nor cancelled its joint military manoeuvres with South Korea, something North Korea considers a provocation.

## **Countdown begins for launch of communication satellite GSAT-29, weather still holds key**

The 27-hour countdown began Tuesday for the launch of India's latest communication satellite GSAT-29 onboard the second developmental flight GSLV-MkII D2 from the spaceport of Sriharikota Wednesday evening, subject to weather conditions, the ISRO said.

Though cyclone "Gaja", earlier forecast to cross the coast between Chennai and Sriharikota, has changed course, the Indian Space Research Organisation said the launch slated for 5.08 pm was subject to the weather and it may go for postponement in case of non-conducive conditions.

GSAT-29 carries Ka and Ku band high throughput transponders intended to meet the communication requirements of users, including in the North East and in Jammu and Kashmir.

"The countdown has begun for the launch of GSLVMkIII D2 carrying GSAT29 at Sriharikota (over 100 km from here). Launch scheduled at 17.08 IST on November 14", ISRO said.

ISRO Chairman K Sivan said there might be a postponement if the weather was not conducive.

"But we are expecting that the launch will happen by tomorrow evening", he told reporters after offering prayers at the famous hill shrine of Lord Venkateswara at Tirumala, about 140 km from here, on the eve of the mission.

On November 11, the Met office had said Cyclone Gaja was likely to cross the North Tamil Nadu and South Andhra Pradesh coast between Cuddalore and Sriharikota on November 15.

However, the cyclone has changed course and as of Tuesday was expected to cross the Tamil Nadu coast between Cuddalore and Pamban, well away from Sriharikota.

The ISRO chief said the Wednesday launch was one of the "very important missions and a milestone" for India's space programme.

"This is GSLV-MkIII-D2 second developmental flight. It is going to launch very important and high throughput satellite GSAT-29. The satellite will be useful in Jammu and Kashmir and North East region for providing connectivity under the Centre's Digital India programme", he said.

A successful launch would pave the way for producing very advanced satellite in future for ISRO, he said.

"(It is) This vehicle (GSLV-MkIII) is going to launch the Chandrayaan-II and also the manned mission. We are getting prepared for that. If everything goes normal, lift off will happen at around 5pm and 8 minutes (tomorrow)", he said.

Following the lift off, the rocket would inject the satellite into the Geostationary Transfer Orbit (GTO) with required inclination to the equator.

The satellite would be placed in its final Geostationary Orbit using the on-board propulsion system and it may take a few days after separation from launcher to reach the orbital slot, ISRO said. GSLV-MkIII is the fifth generation launch vehicle developed by ISRO and is designed to place satellites of upto 4,000 kg in GTO.

The launch vehicle is the 67<sup>th</sup> launch mission from the Satish Dhawan Space Centre at Sriharikota and the 33 communication satellite built by ISRO for which this will be the fifth launch this year.

The GSLV-MkIII-D2 is a three stage launch vehicle with two solid strap-ons, a liquid core stage and a cryogenic upper stage. Compared to solid and liquid stages, the C25 cryogenic stage is more efficient as well as complex.

According to the ISRO, the GSAT-29 satellite is intended to serve as a test bed for several new technologies. It is specifically designed to cater to communication requirements of users from remote areas of the country.

<https://www.dnaindia.com/technology/report-countdown-begins-for-launch-of-communication-satellite-gsat-29-weather-still-holds-key-2685370>

## **NASA to invite designs for AI lunar robot**

*By Mohan Basu*

New Delhi, Nov 13 (PTI): NASA is planning to launch a challenge for the public and scientific community to design a self-assembling robot with artificial intelligence that can explore the surface of the Moon, William Harris, CEO of Space Centre Houston said Tuesday.

Space Centre Houston in the US, the official visitor centre for NASA Johnson Space Centre, conducts regular public outreach programmes to engage people of various ages and diverse backgrounds in scientific research.

These programmes encourage students and scientists to ideate innovative solutions for problems that the US space agency is trying to overcome in order to carry out successful space exploration missions.

"The next challenge is for the Moon -- it will be announced next year -- to develop a self assembling robot or rover on the Moon's surface that has an artificial intelligence platform so it can make decisions based on what it is learning about the lunar surface," Harris told PTI in an interview here.

"The reality is, when we sent humans to the Moon back in the 1960s, just going there and coming back safely was a huge accomplishment. We did not do a huge amount of science during those missions," he said.

Most of the astronauts then were test pilots. The first and only scientist to have visited the Moon is Harrison Schmitt, an American geologist, who is now the last living crew member of Apollo 17, Harris said.

There was very little scope to perform scientific experiments, and to date there is a lot we do not know about the Moon, he said.

However, the astronauts that NASA recruits now are scientists.

With plans underway to take humans back to the lunar surface, the US space agency is working on efficient technologies that can assist astronauts to conduct scientific experiments on the Moon.

In the recent decades, evidence of frozen water beneath the surface of the Moon has emerged. This not only presents the possibility for the Moon to host some form of primitive life, but also opens avenues for future astronauts to harvest water and set up a space colony.

The water could also be broken down to provide hydrogen fuel, using which we could send missions into deeper space, Harris said.

"NASA has come to recognise that you can become to insular with your own team. So it is better to open up to the general public to see if somebody has ideas that can help us address different challenges," he said.

Harris gave an example of a space robotics challenge in the past, that aimed to programme NASA's humanoid Valkyrie to perform human-like tasks.

"Within the group of ten semi-finalists, we had teams from two of the top universities. But the winner of the challenge was a stay-at-home dad, who came with his 6-year-old son," said Harris.

His solutions are now being used by NASA to programme Valkyrie. Involving the public in this way can help space programmes flourish and break new grounds, he said.

Harris was in New Delhi as a part of a delegation of representatives seeking to strengthen ties with Indian companies and to learn about the latest developments in the country's business environment and industries like aerospace, healthcare and information technology.

## जीएसएटी-29 के प्रक्षेपण की उलटी गिनती शुरू

चेन्नई, (वार्ता): भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो) चक्रवाती तूफान 'गाजा' के खतरे के बीच 14 नवंबर को तमिलनाडु के श्रीहरिकोटा से संचार उपग्रह जीएसएटी-29 प्रक्षेपित करेगा।

इसरो सूत्रों ने बताया कि 3,423 किलोग्राम वजनी उपग्रह को प्रक्षेपण यान जीएसएलवी-एमके3-डी2 के जरिए श्री हरिकोटा रेंज स्थित सतीश धवन अंतरिक्ष केंद्र के लांच पैड से प्रक्षेपित किया जाएगा। इसरो सूत्रों ने हालांकि कहा कि चूंकि लांच पैड और लांच यान दोनों ही सभी मौसम में प्रयोग के लिए उपयुक्त हैं, इसलिए यह कोई गंभीर चिंता का विषय नहीं है। उन्होंने बताया कि लांच अथराइजेशन बोर्ड की श्रीहरिकोटा में हुई बैठक के बाद तथा अभियान को हरी झंडी

दिखाने के बाद उलटी गिनती शुरू की गयी। सूत्रों के अनुसार उलटी गिनती के दौरान त्रिस्तरीय वाहन में ईंधन भरने का अभियान चलाया जाएगा जो कि गुरुवार को द्वितीय लांच पैड से शाम 5 बजकर 8 मिनट पर उड़ान भरेगा तथा 3423 किलोग्राम भार के सेटेलाइट को अंतरिक्ष कक्षा (जीटीओ) में स्थापित कर देगा।

सूत्रों ने बताया कि उड़ान भरने के 17 मिनटों के बाद सेटेलाइट अलग-अलग हो जायेंगे तथा 35975 किलोमीटर की ऊंचाई पर कक्षा में स्थापित कर दिये जायेंगे। बहु-बीम और बहुआयामी संचार उपग्रह अपने अंतिम जियोस्टेशनरी कक्षा (जीईओ) में स्थापित किया जाएगा। इसे अपनी कक्षा में स्थापित होने में कुछ दिन का समय लगेगा।

