

# समाचार पत्रों से चयित अंश Newspapers Clippings

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*Sun, 18 Feb, 2018*

## **Explore underwater sonar surveillance at NPOL meet**

Kochi: The Naval Physical and Oceanographic Laboratory (NPOL), Kochi is organising an International Conference on Sonar Systems and Sensors, 'ICONS-2018'. The scientific meet will be held at ADLUX International Convention Exhibition Centre, Karukutty, Angamaly from February 22-24. K Sivan, secretary, Department of Space and chairman of ISRO, will inaugurate the conference on Thursday at 6 pm. S Christopher, secretary defence (R&D) and chairman DRDO will preside.

NPOL is a Systems Laboratory of Defence Research and Development Organisation (DRDO), Ministry of Defence, Government of India engaged in the research and development of Sound Navigation and Ranging (SONAR) systems and allied technologies. Giving a broad outline of the sphere of activity of NPOL, S Kedarnath Shenoy, director NPOL and organising committee chairman, said that its thrust areas of Research and Development are signal processing and imaging, underwater acoustics, electronics, engineering systems, transducers, materials and oceanography.

The laboratory has developed hull mounted sonar for ships and submarines, towed array sonar and airborne sonar for Indian Navy. NPOL's success has contributed to the nation's self-reliance in these vital fields. The conference aims to pool the knowledge in the domain of sonar and underwater sensors, underwater surveillance and communications from across the world.

With sessions covering every aspect of sonar systems and underwater sensors, ICONS-2018 plans to establish a network of all leading practitioners in this domain. Arogyaswami J Paulraj from Stanford University, who is also a Padma Bhushan awardee and recipient of Marconi prize and Alexander Graham Bell award and John Summerscales, School of Engineering, Plymouth University, UK will deliver the keynote addresses on the first and second day respectively. The other key speakers are Flemming Jakobsen from DHI Denmark, Manell Elias Zakharia from the French Naval Academy, Angelino Farina from University of Parma, Italy, Bertrand Dubus from Institutd' Electronique, France, Yves Doisy from Thales Underwater Systems, France and Da Silva Felisberto from University of Aguilere, Portugal.

The conference has scientific sessions on 11 broad themes which will run in four parallel tracks. Each session has invited speakers from within the country and abroad, apart from keynote lectures. Above 200 papers will be presented in the three days.

As a prelude to the conference, a one day pre-conference workshop with tutorials on various aspects of sonar technology is planned on Feb 22 for the benefit of students and young researchers. A cultural evening featuring a bharatanatyam concert by Rajashree Warriar is also scheduled on February 23.

<http://www.newindianexpress.com/cities/kochi/2018/feb/19/explore-underwater-sonar-surveillance-at-npol-meet-1775332.html>



*Sun, 18 Feb, 2018*

## **Miniature avionics, smart sensors future of aerospace: Top**

Hyderabad, Feb 18 (PTI) Integrated miniaturised avionics, smart sensors and innovative guidance schemes would be the backbone of futuristic aerospace and defence systems, G Satheesh Reddy, Scientific Advisor to the Defence Minister, said today.

"Integrated, miniaturised avionics and smart sensors will be the backbone for futuristic aerospace and defence systems. We need to establish necessary infrastructure to provide highly accurate and effective algorithms for the control and guidance of fighter aircrafts, missiles and launch vehicles to make them into next generation systems," Reddy said.

He was addressing the third International Federation of Automatic Control (IFAC) Conference on Advances in Control and Optimisation of Dynamical Systems (ACODS-2018), organised by the DRDO here.

Synergetic efforts of research and development institutes, academia and industries had enabled our country to achieve self-reliance on several technological fronts, he said, adding that technologies had been evolving quickly and the need was to focus on smart and adaptive systems to make our aerospace vehicles cost effective and state-of-the-art.

DRDO Chairman and Secretary, Department of Defence Reserach and Development, S Christopher said, "Control and guidance technologies are crucial technologies that find widespread applications in both civil and defence sectors. Futuristic weapon systems will be smart, intelligent, complex and technologically advanced."

<https://www.indiatoday.in/pti-feed/story/miniature-avionics-smart-sensors-future-of-aerospace-top-1172479-2018-02-18>



Mon, 19 Feb, 2018

## CRPF brings in Sherpa vehicle for gun battles

By Samaan Lateef

### Can resist RDX blast

- The vehicle has a camera atop, providing the outside view to four paramilitary personnel to fire at the target from inside. It can resist a 10-kg RDX blast
- The CRPF used the vehicle at Karan Nagar in Srinagar on February 13 during a 30-hour gunfight

To minimise losses during gunfights with militants, the CRPF is using the French-made anti-mine Renault Sherpa armoured vehicle in Kashmir on a trial basis.

The bulletproof vehicle has a camera atop, providing the outside view to four paramilitary personnel to fire at the target from inside.

"We are using it (Sherpa vehicle) on a trial basis. Our men used it in the recent gunfight at Karan Nagar and are sending the feedback to the top authorities," said Rajesh Yadav, CRPF spokesman.

Yadav said the vehicle, one of the six versions of the Sherpa armoured vehicles manufactured by French company Renault Trucks Defense, would be used in different terrains to understand its effectiveness in counter-insurgency operations.

"The procurement of the armoured vehicle will depend on the feedback after using it in different scenarios," he said.

The CRPF used the vehicle at Karan Nagar on February 13 during a 30-hour gunfight.

Eyewitnesses said the vehicle was operating very close to the house in which militants were hiding. "It didn't suffer any damage during the gunfight," they said.

Officials said the vehicle was brought to Kashmir two months ago and was used during several operations in south Kashmir. They said the fully automatic vehicle could be driven at a speed of 120 km per hour. It could operate effectively in the dark, they said.

## India still hopeful of nuclear deal with Westinghouse

By Dinakar Peri

*'Reactor-maker may come out of bankruptcy soon'*

India is confident of concluding the nuclear deal with reactor-maker Westinghouse Electric very soon as it expects the company to come out of bankruptcy very soon, said Satish Sharma, Chairman and Managing Director (CMD) of Nuclear Power Corporation of India Ltd (NPCIL).

"The discussions are happening and they are of a very complex nature. Any progress will happen only after bankruptcy which is likely to happen very soon. That is why we are continuing the discussions," Mr. Sharma said.

Some officials said they were hopeful that Toshiba, which had acquired the U.S.-based Westinghouse in 2006, was too big to fail and would be bankrolled either by the Japanese government or the Japanese Development Bank.

Following the Indo-U.S. nuclear deal, India has been in discussion with Westinghouse since 2005 to build six AP1000 nuclear reactors. After protracted negotiations and concerns on the nuclear liability, NPCIL and Westinghouse had agreed to "work toward finalising the contractual arrangements by June 2017."

However, the process was stalled after Toshiba Corp declared bankruptcy and decided to move out of reactor-building business.

### Second site in A.P.

Meanwhile, the second site for constructing additional Russian reactors in Andhra Pradesh is yet to be finalised. "The site selection committee is evaluating a second site in Andhra Pradesh other than Kovvada which was initially proposed. There are DAE guidelines laid down for finalising a site," an official of the Department of Atomic Energy (DAE) told *The Hindu*.

Stating that the process is under way, the official said that various factors such as land type, earthquake potential, availability of water should all be factored in. "Given that it is a coastal site, there are also other parameters," he added.



## Army chief Bipin Rawat, NSA made secret visit to Bhutan, discussed China and Doklam issue

*The Bhutan officials made clear their demand for peace in the Doklam tri-junction and apprised the Indians about the status of boundary talks between Thimpu and Beijing.*

In a first such trip of a high-level Indian delegation to Bhutan post the Doklam standoff, Army Chief General Bipin Rawat, Foreign Secretary Vijay Gokhale and National Security Adviser Ajit Doval held a secret meeting with officials of the neighbouring country regarding the increasing flexing of China's military muscle at the eastern border.

PTI quoted sources as saying that security and Chinese infrastructure building on the Doklam plateau was also discussed during the meeting held on February 6 and 7. The meeting comes after media reports cited satellite images as showing construction of a Chinese military complex near the Doklam area.

The visit was not made public even though sources said “positive” outcomes emerged from the meeting. The Bhutan officials made clear their demand for peace in the Doklam tri-junction and apprised the Indians about the status of boundary talks between Thimpu and Beijing. China and Bhutan are engaged in talks over the resolution of the dispute in the area.

The visit came three days after Prime Minister Narendra Modi held talks with his Bhutanese counterpart Tshering Tobgay on sidelines of Advantage Assam – Global Investors Summit 2018, where the two leaders discussed efforts to enhance connectivity in the north-east region.

The 73-day standoff at Doklam, where Chinese military attempted to build a road close to the Chicken’s Neck corridor, had sparked a round of tensions at the border. It finally ended on August 28 last year.

Army Chief Rawat had stoked a fresh round of spat with China last year after he called Doklam a disputed territory. However, Chinese military had asserted that it was very much part of China.

Bhutan has no diplomatic ties with China. As a close friend and neighbour, Bhutan enjoys diplomatic and military support from India. The sources said several other key officials of the Army and the Ministry of External Affairs were also a part of the visit. Asked about the foreign secretary’s visit, a diplomatic source called it “routine”. This was Rawat’s second visit to Bhutan in the last nine months.



Mon, 19 Feb, 2018

## ISRO plans to launch India’s 2nd space observatory

*1st Sat Launched In 2015 Helped Study Celestial Bodies Better*

*By Surendra Singh*

New Delhi: Indian Space Research Organisation (Isro) is planning to launch the country’s second AstroSat-2 or space observatory. The mission is meant to further the study of astronomy (the study of celestial bodies) and astrophysics.

Isro made the announcement of opportunity on February 3 to seek proposals from all institutions currently involved in astronomy/astrophysics for the development of scientific instruments for astronomy payload and mission. The advantage of having such a space observatory in outer space is that it helps observe distant planets, galaxies and other astronomical objects more clearly than from the Earth. Space telescopes avoid problems of ground-based observatories, such as light pollution and distortion of electromagnetic radiation.

The first AstroSat-1 weighing 1,515kg was launched on September 28, 2015. It was successfully placed at an orbit of 650 km altitude and has a life span of five years. It circles around the Earth in 97 minutes and makes 15 rounds a day. The Rs 178-crore AstroSat-1 has five hi-tech cameras (payloads), which cover the energy bands of ultraviolet (near and far), limited optical and X-ray regime (0.3 keV to 100keV). The 2015 launch helped India gain entry into the select club of nations having its own observatory after the US, Japan, Russia and Europe. The key functions of AstroSat-1 are to study binary star system, neutron stars, black holes and star birth regions. One of the unique features of AstroSat mission is it enables the simultaneous multi-wavelength observations of astronomical objects with a single satellite.

With two more years to go before the first observatory’s space life ends, Isro is planning to send Astrosat-2. Astro-Sat-1 (1,515 kg) is desi version of Nasa’s Hubble Telescope though Hubble (11,110 kg) is around eight times heavier than India’s satellite and is a more sophisticated telescope.

Besides Isro, five premier institutes that played a key role in the development of Astrosat-1 are Indian Institute of Astrophysics (IIA), Bengaluru; Physical Research Lab (PRL), Ahmedabad; Raman Research Institute, Bangalore; Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune; and M P Birla Institute of Fundamental Research (IFR), Bangalore.

The spacecraft control centre at Mission Operations Complex (MOX) of Isro Telemetry, Tracking and Command Network, Bengaluru, manages the satellite. The data gathered by five payloads of AstroSat are telemetered to the ground station at MOX. It is then processed, archived and distributed by Indian Space Science Data Centre near Bengaluru.



Sun, 18 Feb, 2018

## IIT-M in process of creating India-specific cancer genome database

IIT-Madras is in the process of creating an India-specific cancer genome database aimed at early detection and development of better treatment strategy for the disease. The National Cancer Tissue Biobank (NCTB), a first of its kind community-based initiative in the country, is collecting cancer tissues from Indian patients “to generate a cancer genome database which was not available so far.”

Prof S. Mahalingam, the faculty-in-charge of NCTB, said different types of cancer tissues were being collected for this purpose.

“This [collection of samples] is critical for identifying the specific changes happening in our own population to develop the diagnostic kit for early detection [of cancer] and this will help us to design a better treatment strategy,” he told *PTI*.

Prof Mahalingam, from the Department of Biotechnology at IIT-M, said creation of such a genome database would also help in developing a specific drug for India’s population.

For instance, the available medication for cancer treatment was “based on the western [countries’] population” and developed for them though these were being used in India too, he said.

While there was an 80-90% success rate of these medication in treating cancer in the western countries, it was less than 50% in India, Prof. Mahalingam said.

Creation of such a pool with samples of different types of cancer and their study would give an indication on what is going on in the community regarding the disease. There could be differences in the way two persons affected with the same type of cancer respond to the treatment, he said.

Tissue samples are collected from medical and education institutes the NCTB has tied up with and only the “unused” ones of a patient are brought to the bio bank for further research, Prof. Mahalingam said.

The samples, ranging from breast cancer and oral cancer to gastro-intestinal cancer, are taken after prior consent from the patients and their families and strict confidentiality is maintained, he said.

Till now, the NCTB has samples collected from over 1,800 patients and it has tied up with nine medical and educational institutes in Chennai and Puducherry for this purpose, he said, adding efforts are on to expand this association.

Further, any cancer researcher in the country can get tissue from this bio-bank “through proper channels,” Prof. Mahalingam said.

“They need to have an ethical clearance from their host institutions. We also have an ethics committee, monitoring committee. Any Indian researcher can approach us,” he said.