

# समाचार पत्रों से चयित अंश Newspapers Clippings

दैनिक सामयिक अभिज्ञता सेवा

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## Motor glitch may have stopped Agni-II test flight

A 'VERY minor' glitch in the motor is likely to have caused problems in the test firing of an Agni-2 missile off the coast of Odisha as the missile could not meet all the desired parameters in the firing done on May 4 last month. "Prima facie it appears that there was a minor glitch in the motor of the missile which may have led to the missile not meeting all the desired parameters," defence sources told MAIL TODAY here.

The sources, however, said the detailed reason about the tests are being analysed for finding out the causes in detail behind the test not meeting the full expectations as the missile is already operationalised and in the armed forces. India, on May 4, test-fired its medium-range nuclear-capable Agni-II missile having a strike range of more than 2,000 kms from an island off the Odisha coast as part of a user trial by the strategic forces command. The test, however, did not meet all the desired parameters which was conducted from a mobile launcher at the Integrated Test Range (ITR) on Abdul Kalam Island, they said. Agni-II has already been inducted into the services and the test was carried out by the Strategic Forces Command (SFC) as part of a training exercise.

The two-stage missile equipped with advanced highaccuracy navigation system was propelled by solid rocket propellant system, the sources told MAIL TODAY. Agni-II, which has a length of 20 metres, weighs 17 tonnes and can carry a payload of 1000 kg over a distance of 2000 km. It is a part of the Agni series of missiles developed by the DRDO which includes Agni-I (700-km range), Agni-III (3,000 kms), Agni-IV (4,000 kms) and Agni-V (more than 5,000 kms).

The last user trial of Agni-II that was conducted on November 9, 2014, from the same base was a success. From time to time, the SFC carries out tests of missiles in its inventory from different production batches to check the effectiveness of the weapon systems in its stock. The nuclear warhead carrying missiles are mainstay of Indian nuclear 'no first strike policy' and have been developed as reliable as credible weapon systems.



## Navy eyes advanced subs

*By Dinakar Peri*

*Not keen on ordering more Scorpene, which have already been delayed*

With the Strategic Partnership model for procurement of defence platforms now official, the Navy is not interested in ordering additional Scorpene submarines, a senior naval source told *The Hindu*. Six Scorpene are now under construction, and the Navy is keen to accelerate the tender for a new line of advanced submarines under Project-75I. "It is logical that we want to go in for new submarines under Project 75I as they are more advanced," one officer said.

Another officer observed that the Scorpene programme was already delayed and the technology would be so much older. "Why get more of them when the more advanced ones are already in the pipeline," he said.

Mazagon Docks Ltd., Mumbai, is manufacturing the Scorpene conventional submarines with technology transfer from DCNS of France under a \$3.75-billion deal signed in October 2005. The first submarine *Kalvari* is set to join the Navy in August and all six are expected to be inducted by 2022.

India and France have held informal discussions for three additional Scorpene as a follow-on contract.

With the SP policy delayed, the discussions were expected to gain momentum during the strategic dialogue at the end of the year. However, there is a change of thought with the government notifying the SP model as a chapter of the Defence Procurement Procedure.

**Project-75I** - The P-75I submarines will be more modern and advanced with all of them equipped with Air Independent Propulsion modules to enhance the reach and stealth characteristics. AIP modules were not part of the Scorpene deal, and the Navy is trying to have them fitted on the last two Scorpenes. That is contingent on the timely delivery of the AIP being indigenously developed by the Defence Research and Development Organisation. The deal for six submarines under P-75I is expected to cost about ₹ 50,000 crore and the tender process will begin soon as per the guidelines of the SP model.

## THE ECONOMIC TIMES

Wed, 07 June, 2017

# Defence Licensing Moved Offline, Firms Concerned

By *Manu Pubby*

Defence manufacturing licences can no longer be obtained with an online process, seeding doubts on the fate of some 80 pending proposals from the private sector, ranging from battle tanks to UAVs and warships.

The entire process of application was moved online in 2014 under reforms for the ease of doing business. According to new rules set up by the Department of Industrial Policy and Promotion (DIPP), however, arms companies will have to submit 15 physical copies of a new form -including details and several enclosures -to initiate the application process for industrial licences.

ET had earlier reported resumption of these licences after DIPP's differences with the ministry of home affairs (MHA) held them back for a year. Sources said moving applications offline was initiated after consultations with various departments. ET spoke to several industry leaders who were disheartened by the return to slow processing. Companies are also concerned about the fate of 80-odd applications pending after the process stopped in June 2016 due to the MHA-DIPP impasse. "We are not clear on what will happen to the pending applications. Will a fresh application be have to be filed or will it be processed under the old rules?" said an industry leader requesting not to be named.

The applications are for manufacturing of tactical radios, unmanned aerial vehicles, ammunition, small arms, armoured vehicles, howitzers and warships. The pending list includes several new entrants, as well as components manufacturers planning to go big. Another issue of concern, company executives said, is that a number of items that were on the previous licence list find no mention in the new policy. "The question is, do these items no longer require a licence or is another process going to be defined for them?" said one executive. Some items not on the new list are electronic countermeasure systems, encrypted communication equipment, surveillance systems, protective equipment like body armour and military imaging systems. The new list also does not mention whether advanced simulation systems for military training will require a licence.

## THE ASIAN AGE

Wed, 07 June, 2017

### All-women Navy ship in Mauritius

**New Delhi:** The Indian Navy's sailing vessel *Tarini*, with an all-woman crew, on Tuesday visited Port Louis harbour in Mauritius as part efforts by the two countries to ramp up maritime security cooperation.

"*Tarini* has begun a new chapter in the history of ocean sailing by Indian

women, wherein the first Indian all-woman crew of IN would endeavour to circumnavigate the globe in August," the Navy said in a statement. On its maiden sea voyage, *Tarini* is a sister vessel of the Navy's first sailing vessel *INSV Mhadei*, and was inducted into the Indian Navy in February. — PTI

Wed, 07 June, 2017

## China in touch with Russia over India's NSG bid

China on Tuesday said it was in touch with Russia over India's application for membership of the Nuclear Suppliers Group (NSG). After China on Monday said New Delhi's bid for NSG membership had become more "complicated", External Affairs Minister Sushma Swaraj said New Delhi will reach out to Beijing's friendly nations, including Russia, to convince it on the issue.

"China and other members, including Russia, have maintained close communication and we have also maintained that we should act in accordance with the principles of NSG," Chinese Foreign Ministry spokesperson Hua Chunying said. However, Hua said China's position on India's bid for NSG membership remained unchanged. The plenary meet of the 48-member elite grouping of nuclear supplier countries is scheduled in the Swiss capital Bern later this month. China has already made clear that it will again oppose India's entry.



Wed, 07 June, 2017

## Chinese army rejects India's concerns on breach of airspace

Beijing: The People's Liberation Army (PLA) on Tuesday dismissed New Delhi's concerns over its military helicopters violating the Indian air space, hours after external affairs minister Sushma Swaraj said the incident would be raised with Chinese authorities.

China on Monday defended its military helicopters hovering over the Barahoti region in Chamoli district of Uttarakhand over the weekend, saying it has a territorial dispute in the eastern section of the frontier.

Official sources in New Delhi said the two helicopters, which returned to the Chinese side of the Line of Actual Control (LAC) after about five minutes, could have photographed Indian troops during a possible reconnaissance mission.

A brief PLA statement said reports from India were wrong.

"The Chinese military was conducting routine training activities on the Chinese side of the LAC. The Indian print (media) reports do not match the facts," the statement said in Chinese. The PLA denial comes after Swaraj said on Monday the matter would be raised with competent Chinese authorities.

Chinese foreign ministry spokesperson Hua Chunying on Monday said: "In principle, China and India have territorial disputes in the eastern section of the China-India border."

She had also indicated the helicopters were on the Chinese side of the LAC. "Chinese military carry out regular patrols in the relevant areas. We hope that the two sides will make joint efforts to maintain tranquillity and peace of the border area," she said.

### China cautions India against alliances

China cautioned India and other Asian countries against forming informal alliances to counter its assertiveness as they cannot rely on the US in Trump era.

Hua was asked about reports from the Shangri-La Dialogue in Singapore that India, Japan, Australia and Vietnam were contemplating informal alliances in view of the uncertainties of US policies under Trump.

She said that if the reports are authentic, it demonstrate that Cold War mindset has not been eradicated and "some people approach and handle the country to country relations with zero sum opinion".

## Isro still seeks new heights to conquer

**S**uccess has become a way of life in Isro. It is assiduously sought and has been achieved incrementally with a eye on scientific and technological advancement. Isro's latest venture in sending the heaviest satellite from an Indian launchpad is a pathbreaking project, coming after dogged efforts to overcome hurdles, including global reluctance to share space tech with India since the 1980s, with even friendly Russia armtwisted into not helping with cryogenic technology. Years after the US refused to share technology, India has painfully broken the shackles, achieving self-reliance with its monster rocket (nicknamed "Baahubali") placing in perfect orbit its heaviest communications satellite. This is a testament to Isro's dedicated personnel and a space programme on a scale of economy that's an eye-opener to the world, with repeated successes in the commercial satellite launch business. To do all this in an Indian environment of pulls and pressures is an achievement by itself.

Besides savings in not having to use expensive foreign launchpads and rockets, lifting of heavy satellites with indigenous cryogenic engine technology, developed at around ₹300 crores over years of research, also gives

**It's a matter of pride that India is one of six nations with the cryogenic engine technology now, which has helped conquer a key frontier in rocket science. The independent path chosen has paid rich dividends...**

us the capability to put Indians in space on a totally *desi* mission, though it may take at least seven years. It's arguable whether we're on the beaten path, but pursuit of scientific excellence in such challenging circumstances isn't just to score points. The use of electric propulsion instead of burning chemical fuels represents progress in the competitive space business, where Elon Musk's SpaceX has just completed a mission with a used "Dragon" space capsule, while it has 10 recovered rockets used more than once. SpaceX has just put into geostationary transfer orbit the most sophisticated communications satellite, the 6,100-kg Inmarsat, that can serve hundreds of millions of customers. So the sky's not even the limit these days.

Bigger and heavier satellites aren't merely for show. The technology on offer leaps generational changes so quickly now that newer satellites have to be put in orbit to serve various purposes, from communications to mapping the planet to weather. One "high throughput" satellite can potentially replace six to seven small satellites while offering higher technology in transferring data on multiple frequency beams. The C25 indigenous cryogenic engine, providing the big final thrust, is the badge of honour our satellite launch missions will be harnessing for further progress. It's a matter of pride that India is one of six nations with the cryogenic engine technology now, which has helped conquer a key frontier in rocket science. The independent path chosen — with the help, of course, of Russian engines at an experimental stage — has paid rich dividends. There are more missions ahead, like Chandrayaan-II and Aditya, and given Isro's record, India can look forward to greater successes in space.

## Not Fat; Lean and Mean

*Astounding feats by Indian space scientists have become routine; now for next level*

The Indian Space Research Organisation (ISRO) has been piercing the skies deeper and even deeper. The latest achievement is the successful launch of the GSLV MK-III rocket on Monday from the Satish Dhawan Space Centre in Sriharikota. The Monday's launch was record-breaking and historic — this space feat was, perhaps, Isro's most muscular launch vehicle till date. With this, India is all set to become self-reliant to launch heavy communication satellites and will not have to be dependent on other countries for launching heavy pay loads. The launch is significant for a few reasons. First, because this missile has been developed indigenously. This was possible only due to the relentless efforts of Isro scientists who were driven with the belief that we can do it ourselves. This mastery has, however, come over a period of time, amidst many constraints; and with many failures in between. Besides the lack of space and the required capability to develop missiles, what could be considered as a major setback for the scientists was the denial by the West of the cryogenic engine technology to India, the development of which had almost become a *fait accompli*. But nothing could deter our scientists.

The development of the GSLV space programme must itself be viewed as a case in point. From the time when it was first flown a decade and a half ago, it faced many challenges and setbacks. Many a time it fell into the sea or collapsed due to technical snags. From the launch of the Polar Satellite Launch Vehicle, which is the country's trusted workhorse for lower earth orbit missions, to the development of the GSLV which has the capability of putting heavy communication satellites, the journey is in fact endless. Our scientists have gradually mastered this technology. A judicious mix of internal and external knowledge has been at the core of a series of developments. To this end, another reason why the GSLV launch is significant is because India now has the heaviest rocket technology. The GSLV MK-III has the capacity to lift 4,000kg into the Geosynchronous Transfer Orbit, and also to carry a 10,000 kg payload to the the Low Earth Orbit. This is double the thrust and capability of the previous GSLV Mk II. Third relates to the commercial implications that the launch will bring to India and to Isro in particular. Commercially, GSLV MK-III can bring significant cost advantages and simultaneously India can also become a preferred destination for other countries that need to launch heavier satellites. But for that we need to match the standards set by the US and Russia. We must make our commercial space opportunities more buoyant. Isro needs the Government's support to encourage private participation.

Though a late entrant into the space race with other countries, India definitely has earned the tile of becoming an Asian leader in space exploration. Symbolically, the launch is also a matter of national pride. The power of a single rocket is such that besides being an advancement of space and technology, it becomes a source of inspiration for the citizens, its leaders and, most importantly, the scientists to take on big problems and solve them in creative ways.

## Hottest known planet in universe discovered

Scientists have discovered the hottest known planet located 650 light years from Earth, which is warmer than most stars in the universe and sports a giant, glowing gas tail like a comet. The Jupiter-like planet orbits a massive star KELT-9 every day and a half, researchers said. With a day-side temperature peaking at 4,326 degree Celsius the newly discovered exoplanet, designated KELT- 9b, is hotter than most stars and only 926

degree Celsius cooler than our Sun. The ultraviolet radiation from the star it orbits is so brutal that the planet may be evaporating away under the intense glare, producing a glowing gas tail.

The gas giant 2.8 times more massive than Jupiter but only half as dense, because the extreme radiation from its host star has caused its atmosphere to puff up like a balloon. Since it is tidally locked to its star - as the moon is to Earth - the day side of the planet is perpetually bombarded by stellar radiation and, as a result, it is so hot that molecules such as water, carbon dioxide and methane can not form there.

“It's a planet by any of the typical definitions based on mass, but its atmosphere is almost certainly unlike any other planet we've ever seen just because of the temperature of its day side,” said Scott Gaudi, professor at The Ohio State University in the US and lead author of the study published in the journal Nature. The reason the exoplanet is so hot is because the star it orbits is more than twice as large and nearly twice as hot as our Sun. “KELT-9 radiates so much ultraviolet radiation that it may completely evaporate the planet.

Or, if gas giant planets like KELT-9b possess solid rocky cores as some theories suggest, the planet may be boiled down to a barren rock, like Mercury,” said Keivan Stassun, professor at Vanderbilt University in the US.