

DRDO unveils LACSMI to boost Navy firepower

Visakhapatnam: It's named LACSMI, pronounced Laxmi - the Goddess of prosperity and wellbeing - and not without reason. It holds the potential to ensure that warships, tanks and other weapons platforms manufactured in the country can have exactly the right stealth capabilities to evade laser and infrared guided bombs and missiles. The Laser Cross Section Measurement & Imaging System (LACSMI), developed by Laser Science and Technology Centre (LASTEC) of the Defence Research and Development Organisation was unveiled at the maritime exhibition at Visakhapatnam held as part of the International Fleet Review 2016. Most of the Indian Navy's latest warships possess stealth capabilities but till now there was no way of measuring exactly how much is good enough to fool the laser seekers. It will be LACSMI's job to carry out imaging of ships as well as tanks and other military vehicles to find the 'hotspots' that give away their location to the enemy. "This technology is in a nascent stage worldwide and no such system is reported in open literature or available inventory of any developed nation's armed forces. This was developed indigenously and is an excellent example of 'Make in India' efforts. Electro-optically guided precision strike munitions, commonly known as laser guided and infrared guided munitions have proved how lethal they are in recent conflicts around the globe. In laser-guided munitions, the target is illuminated by a laser designator and laser seeker head installed within the bomb or missile. They make use of laser-scattered radiation from the targets to command the weapon to strike with remarkable precision. Such weapons are widely used nowadays and pose an increasingly serious threat to strategic targets. In order to modify existing platforms to make them stealthier or design new generation stealth platforms, a system which can measure and record laser signature was required;" says Dr Ravindra Singh, project director at LASTEC. Singh added: "It can provide online and offline laser signature measurement, generate laser 3D images, identify hotspots and automatically video track sea and airborne targets. It also has the capability to give motion compensated laser signature and 3D images, which is contemporary technology developed for the first time ever." Madhuri Yadav, who has been working closely with Singh, says that the system was developed in 2014 but took a while to test and adjust. Now, it will be set-up on Dolphin Hill at the naval dockyard in Visakhapatnam. It will constantly be sending out a radar beam to a distance of up to five km to pick up targets. The laser is totally eye safe.

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BEL To Showcase Home Grown Radars, SONARs At 'Make In India Week'

India's Bharat Electronics (BEL) will showcase its indigenisation efforts at the 'Make in India Week' to be held from February 13-18, 2016, at the MMRDA Grounds, Bandra-Kurla Complex, Mumbai. BEL will showcase 'Akash' surface-to-air missile system, Weapon Location Radar (WLR), Ground Penetrating Radar (GPR), Through Wall Radar (TWR), Hull Mounted Sonar (HUMSA), Software Defined Radio (SDR Manpack), 40 mm L-70 anti-aircraft guns and other products indigenously designed and developed either by BEL or in collaboration with Defense Research Development Organization (DRDO) at the Defense Pavillion, BEL said in a statement Wednesday. WLR has been designed to locate hostile guns, mortars and rockets. With 85% indigenous content, WLR is a joint development project undertaken by LRDE and BEL for the Indian Army. GPR is used to detect buried ammunition and metallic and non-metallic landmines (anti-personnel & anti-tank mines) in various types of soils. With 70% indigenous content, GPR has been designed, developed and manufactured by BEL. TWR can be used to locate terrorists/hostages hiding behind walls, people trapped in buildings during fire, persons buried under walls which have collapsed after an earthquake or landslide. With 80% indigenous content, it has been designed, developed and manufactured by BEL. HUMSA is an advanced active-cum-passive integrated sonar suite which can be fitted on a variety of naval platforms and customised for both small and large ships. With 70% indigenous content, it has been designed and developed by Naval Physical & Oceanographic Laboratory (NPOL) and manufactured by BEL for the Indian Navy. SDR (Manpack) is a multi band, multi role tactical radio for manpack, vehicular and static applications with built-in high grade secrecy, in-built GPS and legacy support.