

DRDO starts work on ‘next-gen’ hypersonic weapon

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By Sudhi Ranjan Sen

The Defence Research and Development (DRDO) has started work to produce a hypersonic weapon – missiles that travel at five times speed of sound, or a little over a mile every second. A wind tunnel to test and fine tune the technology will be operational soon, senior government officials who did not want to be named said.

Defence Minister Rajnath Singh is expected to inaugurate the facility soon, they added.

“A hypersonic weapon system is one of the many niche technologies we are exploring seriously,” one of the officials said, asking not to be named.

Billed as a “next-gen” weapon system, the race to acquire hypersonic weapons technology is heating up. China, Russia, and the United States are testing hypersonic weapons of various types to enhance strategic nuclear deterrence and strengthen front-line combat units.

Existing intercontinental ballistic missile (ICBM) re-entry vehicles also travel at those superfast speeds, but the hypersonic glide vehicles now in development are far more manoeuvrable, making their tracking and interception nearly impossible.

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In a bid to boost defence manufacturing in India, the DRDO is also offering 1,500 of its patents, including critical missile technology, life sciences, and naval technology, for use by Indian Industry, DRDO chairman G Satish Reddy said.

The patents can be accessed by free of cost even by start-ups and medium and small manufacturing enterprises.

Some of the patents offered for free include technologies to manufacture “man-mounted air-conditioning system”, aircraft arrester barrier system, a sliding mechanism for missile containers, lightweight high strength broadband microwave absorbing rubber, silicon-based lubricants for wide temperature range applications, low-density carbon foam, and anti-corrosive paint for application under immersed conditions, among others.

“DRDO is determined to encourage industry to develop advanced defence equipment thereby making the Make-In-India programme a success. We have today an 1,800-industry base, we are determined to enlarge this base and take the technological capability to a higher level,” Reddy said, explaining the reason behind offering patents at no cost.

Indian industry will not have pay “license fee or royalty” for any of the patented technologies, said a second senior DRDO official who did not want to be named. “DRDO won’t be just offering the technology but will also be handholding the industry and help them produce the product,” he said.

In a related development, DRDO has also tweaked its policy for “Transfer of Technology” (ToT) to the industry. No, ToT fee will be charged from the industry, DRDO Development Partners developing systems or sub-systems for military applications. And, for other industries, the ToT fee is reduced to 5% against an earlier rate of 20%. Also, no royalty is charged for supply to Indian Armed forces and other Govt departments. A nominal royalty of 2% will be charged for supply in the commercial market and for exports.

“Hypersonic weapons will become very critical in the near future. China has demonstrated that it has the technology. Others like US and Russia may already possess such weapons. It’s time that India also starts looking at these technologies,” Lieutenant General(retd) Vinod Bhatia, former Director General of Military Operations said.

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