

## Defence Minister hands over DRDO systems to Armed Forces Chiefs

Three indigenously developed Defence Research and Development Organisation (DRDO) systems were handed over to Army, Navy and Air Force by the Defence Minister Rajnath Singh at a function in DRDO Bhawan.

The Indian Maritime Situational Awareness System (IMSAS) was given to the Chief of Naval Staff Admiral Karambir Singh, ASTRA Mk-I Missile to Air Chief Marshal Rakesh Kumar Singh Bhadauria and Border Surveillance System (BOSS) to the Chief of Army Staff General MM Naravane. The handing over of these products were done in the presence of Minister of State for Defence Shripad Yesso Naik and Chief of Defence Staff General Bipin Rawat.

The minister also gave away awards to DRDO scientists for outstanding contributions in various categories during the function.

The awards include DRDO Lifetime Achievement Award – 2018 to N V Kadam for his contributions for developing control and guidance schemes for missiles. Excellence awards were given to academia and industry for technology absorption. Besides, individual awards, team awards, technology spin-off awards, techno managerial awards and awards in other categories were also given.

Complimenting the DRDO scientists for their outstanding work in developing defence systems, Rajnath Singh said that DRDO has been developing high level technologies for defence systems for increasing the capacity

and capability of armed forces. He lauded the role of DRDO scientists in combating COVID-19 pandemic. He congratulated all the scientists who received the awards and wished them the best for their future endeavours.

Speaking on the occasion, Minister of State for Defence Shripad Yesso Naik said that DRDO is playing an important role in self-reliance of Defence. He appreciated the efforts of DRDO towards development of technologies and products for combating COVID-19.

Chief of Defence Staff General Bipin Rawat in his address congratulated the scientific fraternity for their achievements and emphasised on the need of working at the fast pace so that the country will have most of the indigenous systems.

The development of these high technology systems has led to higher self-reliance in Defence technologies. These three systems which have completed the design and development cycles and are being deployed were handed over to the services.

Among the systems handed over was BOSS. An all-weather electronic surveillance system successfully designed and developed by Instruments Research & Development Establishment (IRDE), Dehradun. The system has been deployed at Ladakh border area for day and night surveillance. The system facilitates monitoring and surveillance by automatically detecting the intrusions in harsh high-altitude sub-zero temperature areas with remote operation capability. The system is being produced by Bharat



Electronics Limited (BEL), Machlipatnam.

The IMSAS is state-of-the-art, fully indigenous, high performance intelligent software system that provide Global Maritime Situational Picture, Marine planning tools and Analytical capabilities to Indian Navy. The system provides Maritime Operational Picture from Naval HQ to each individual ship in sea to enable Naval Command and control (C2). Centre for Artificial Intelligence & Robotics (CAIR), Bengaluru and Indian Navy has jointly conceptualised and developed the product and the BEL, Bengaluru has implemented it.

The ASTRA Mk-I is the indigenously developed first Beyond Visual Range (BVR) Missile, which can be launched from Sukhoi-30, Light Combat Aircraft (LCA), Mig-29 and Mig-29K. Globally, very few countries have expertise and capabilities to design and produce this class of weapon system. Successful development of ASTRA weapon system by Defence Research & Development Laboratory (DRDL) Hyderabad & production by Bharat Dynamics Limited (BDL), Hyderabad is a major contribution towards 'Atmanirbhar Bharat'.

Secretary, DDR&D & Chairman DRDO Dr G Satheesh Reddy said that the DRDO is committed to the development of advanced systems and technologies for Defence. ■

## BEL signs contract with Indian Navy for supply of Laser Dazzlers

Bharat Electronics Limited (BEL) has signed a contract with Indian Navy for supply 20 Light Amplification by Stimulated Emission of Radiation Dazzlers (Laser Dazzlers). The BEL had earlier this month won the contract beating global Original Equipment Manufacturers (OEMs) in buy global category. These would be manufactured by BEL, Pune plant.

The Laser Dazzler is used as a non-

lethal method for warning and stopping suspicious vehicles/boats/aircrafts/UAVs/pirates etc. from approaching secured areas during both day and night. It is capable of dazzle and thereby suppress the person's/optical sensor's action with disability glare in case of non-compliance to orders. It disorient/ confuse/blind a person temporarily. It also dazzles and distracts aircraft/UAVs. It is a portable,

shoulder operated and ruggedized for military use in adverse environmental conditions. Laser dazzler technology was developed by Defence Research and Development Organisation (DRDO).

This unique product is indigenously designed and developed for the first time for the Armed Forces. It will support the 'Atmanirbhar Bharat' initiative of Prime Minister Narendra Modi. ■

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SS316. These valves are installed on the Submarine Water Mist fire control system.

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Fluid Controls Private Limited was established in 1974 by Dr. Y E Moochhala, a PhD from Northwestern University, the USA with a vision to deliver high-quality, high-performance products which totally satisfy customers.

Fluid Controls offers clients a complete range of instrumentation products, including connectors and adaptors, valves, manifolds, DIN pipe clamps and SAE flanges. The company's products ensure precision connections that are designed based on specific application requirements and perform to international standards. The firm is a premier supplier to onshore and off-shore oil & gas installations, process and power plants, defence, critical applications for nuclear plants, and brake piping applications in the railways.

Since 2000, Fluid Controls has been a supplier for several Indian defence projects. They include:

Fluid Controls redesigned the Akash Air Storage Vehicle (ASV) under the auspices of Research & Development Establishment (Engrs). A prototype was delivered in 2004 which included all elements of the circuit including Balance

Piston Stop valves, fabrication, installation and connection of the circuit on to the ASV with testing to 600 bar hydrostatic and 400 bar pneumatic pressure.

In 2008, the company's first order was executed with DMDE for valves for compressed air systems in submarines (Shut-off, Non-return, Relief, Throttle & Pressure Gauge) in Bronze and SS with performance pressures up to to 400 kg/cm<sup>2</sup>.

Since 2014, Fluid Controls has supplied Kirloskar Brothers Limited specially-designed Isolation-Throttle valves designed for minimum pressure loss and non-return valves in stainless

