

# Defence minister hands over DRDO systems to Armed Forces Chiefs

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In news

Recently the defence Minister handed over three indigenously developed Defence Research and Development Organisation (DRDO) systems to Army, Navy and Air Force at a function held in DRDO Bhawan.

What are those systems developed by DRDO?

The Raksha Mantri handed over the following systems

- Indian Maritime Situational Awareness System (IMSAS) 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.

Border Surveillance System (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.**

## Indian Maritime Situational Awareness System (IMSAS)

- 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.

## ASTRA Mk-I Missile

- It 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.
- The 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'.