



Defence Electronics Research Laboratory



DLRL



About DLRL

DLRL, established in 1961, evolved from modest beginning of making electronic equipment and systems to a premier Electronic Warfare laboratory catering to the needs of Indian Tri-services.

DLRL's 60-year journey evolved from Technologies to Design & Development of Electronic Warfare (EW) Systems for land, sea, air and space platforms, thus making DLRL a force-multiplier laboratory for tri-services.

DLRL has established core competence in design & development in the domain of Electronic Warfare encompassing several areas such as Multi Octave band Antennas & Radomes, Multi-Octave band MW/MM wave components & Super components, Narrow-Band / Wide-Band intercept Receivers, High Accuracy Direction Finding Receivers, Digital Receivers, Radar Finger Printing System (RFPS), RWR, High Power Transmitters for ECM, Rotman Lens based Multi-Beam Jammers, Frequency Memory Loop & Digital Radio Frequency Memory for Jammers.

DLRL successfully completed projects such as **AJANTA, CANON, SAMYUKTA, SANGRAHA, VARUNA, DIVYA DRISHTI, SUJAV, STRIDE, RUSTOM-II, HIMRAJ (GBMES), AEW&C, D4, KAUTILYA, SAMUDRIKA** etc. which bear testimony to the achievements and capabilities of the dedicated scientific manpower of DLRL.

DLRL's R&D work resulted in production of world class EW systems worth of Rs. 18,975 crores and aspire to become an exporter of world class EW Systems in the years to come

Achievements

Hon'ble President of India, Smt. Droupadi Murmu inaugurated National Open Air Range – NOAR established by Defence Electronics Research Laboratory, Hyderabad. The inauguration was done in virtual mode from Vishakhapatnam as part of Navy Day Celebrations on 04th Dec 2022 in gracious presence of Shri Biswa Bhushan Harichandan, Governor of Andhra Pradesh, Shri G. Kishan Reddy, Tourism Minister, Shri Ajay Bhatt, Minister of State for Defence & Tourism. Dr. B.K. Das, Director General (ECS), DRDO and Shri N. Srinivas Rao, Director, Defence Electronics Research Laboratory (DLRL) graced the inaugural ceremony at Vishakhapatnam.



Smt. Droupadi Murmu virtually inaugurated NOAR (DRDO) on 04-12-2022

Honourable Prime Minister Sri Narendra Modi Formally Handed over DLRL Designed and Developed Advanced Electronic Warfare Suite 'Shakti' for Indian Naval Ships to Chief of Naval Staff Admiral Karambir Singh PVSM, AVSM, ADC



Hon'ble Prime Minister Formally Handed over Shakti EW System to Chief of Naval Staff on 19-11-2021

Handing Over of DRDO Anti Drone System by Hon'ble RM on the occasion of 'Iconic Week Celebrations - DRDO' on 14th Dec 2021.



Product / Technology

Nayan

COMINT System for Ships

Indigenously designed, developed and successfully completed User Sea trials of Nayan – COMINT System for Ships of Indian Navy. Production Agency delivered 8 out of 58 Production Systems to Indian Navy.



Shakti

EW System for Capital Ships

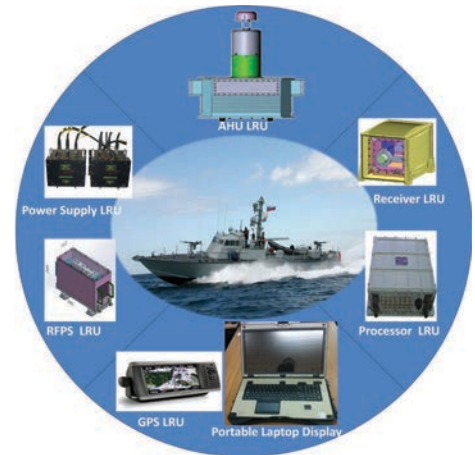
Indigenously designed, developed and successfully completed User Sea trials of Shakti – EW System for Capital Ships of Indian Navy. Production Agency delivered 4 out of 12 Production Systems to Indian Navy.



Tushar

COMINT System for Ships

Indigenously designed, developed and installed Tushar – ESM System on a small Naval ship for User Sea Trials. User Sea Trials are in progress.



Sarang

Heliborne ESM System

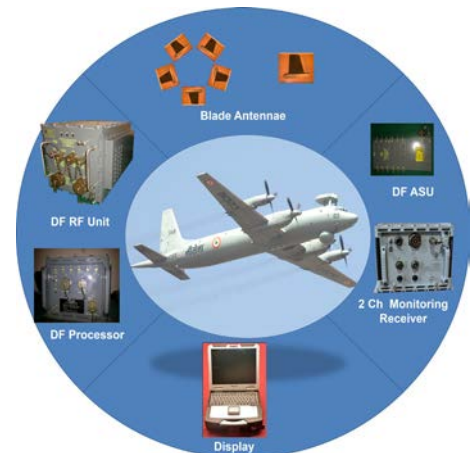
Indigenously designed, developed and successfully completed User Flight trials of Sarang - Heliborne ESM System for Indian Navy. Production orders for 12 systems are in pipeline.



Sarvadhari

COMINT System for Airborne Platform

Indigenously designed, developed and successfully completed User Flight trials of Sarvadhari - COMINT System for Airborne platform of Indian Navy.



Sarakshi

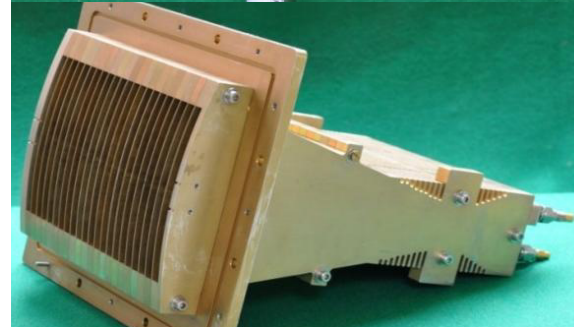
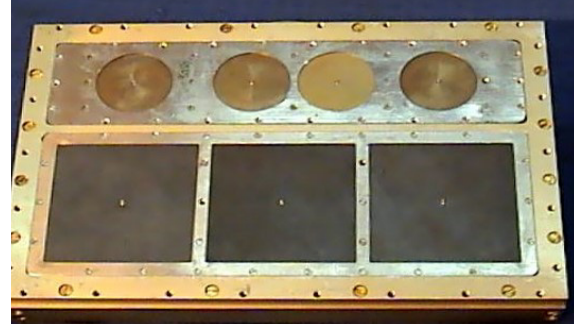
ESM System for Dornier Aircraft

Indigenously designed, developed and successfully completed User Lab trials of Sarakshi – ESM System for Dornier Aircraft of Indian Navy.

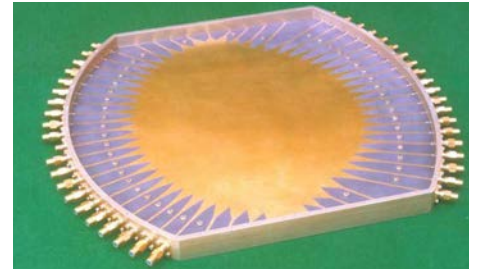
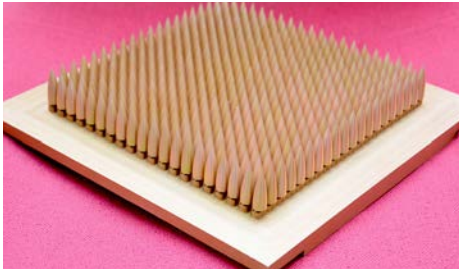


Antennas & Radomes Technology

- ▶ Stacked Biconical Antennas operating in the E-K band
- ▶ Airborne blade monopole antennas operating in the A-C and A-D bands
- ▶ Airborne blade dipole antennas operating in the A-D band
- ▶ Sleeve Dipole Antenna operating in the D-E band
- ▶ Compact Discone Antennas designed for operation in A band
- ▶ Shuttle Cock Antennas operating in the A-C band
- ▶ 2-bay monitoring antennas subsystem covering A-C, D-E band
- ▶ 3-bay monitoring antennas subsystem covering A-C, C-E band
- ▶ Constant Beamwidth Horn Antennas working over E-G, H-J and J-K band
- ▶ Sectoral Horn BLI Arrays E-G, H-J band
- ▶ Broadband BLI Antenna Panel working over C-J band
- ▶ Two dimensional BLI array working in the C-D, E-G and H-J bands
- ▶ Circular BLI array DF Head covering D-J band
- ▶ 3-bay DF Antenna subsystem covering A-E band
- ▶ MMW Biconical Antenna
- ▶ Dual Polarized Antennas covering A-B band
- ▶ High Power Linear Array Antenna for Electronic Attack Application covering H-J band
- ▶ Rotman Lens fed High Power Linear Array Antenna for Electronic Attack Application covering H-J band

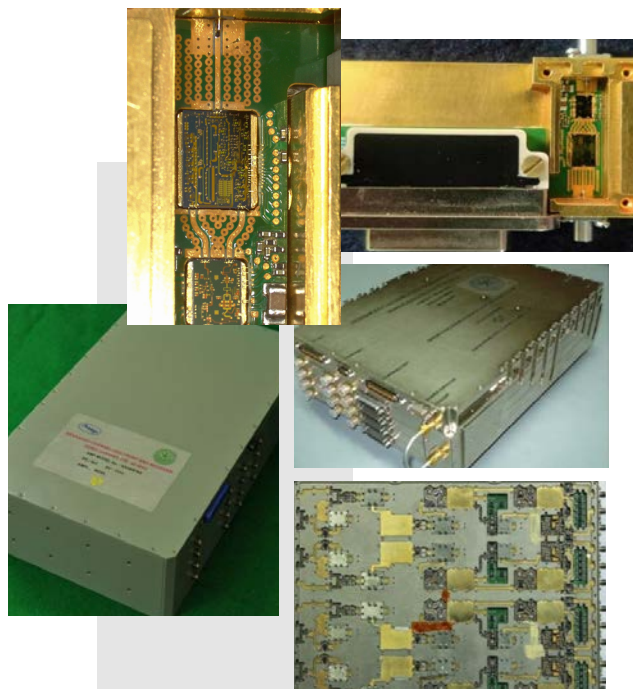


- ▶ Jammer Antenna Sub-system for Anti Drone System
- ▶ BoR Antenna working in the G-J band for shared aperture antenna application
- ▶ Streamlined Radomes for Airborne application
- ▶ Submarine Radomes



Microwave Technology

- ▶ C-E GHz and E-J GHz Homodyne Receiver
C-J GHz Quad Superhet Receiver
- ▶ Channelised Receiver C-J GHz , J-K GHz in Single dual and quad configurations



Other Products

- ▶ ELINT & COMINT Payloads for UAVs
- ▶ RWR, ESM, CSM Systems for Surveillance Aircrafts
- ▶ RWR system Combat Aircrafts
- ▶ Ground based and Ship-borne CSM systems
- ▶ Ground based and Ship-borne Radar ECM systems
- ▶ ERP unit for ASPJ Pods
- ▶ RFSoc based Digital Rx Technology

COMINT PAYLOAD FOR RUSTOM-II



RWR & ESM Systems on AEW&C platform





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