

LIGHT AS A WEAPON: DRDO'S DEW MARKS INDIA'S DEFENCE MILESTONE



**Editor-in-Chief: Ms Kiran Chauhan****Associate Editor-in-Chief: Sudhanshu Bhushan****Editor: Dipti Arora****Design & Pre-press: Raj Kumar****Printing: Rajesh Kr Singh****Distribution: Pratyaksh Sharma****45th Year of Publication****MAY 2025 | VOLUME 45 | ISSUE 05****LABORATORY CORRESPONDENTS**

- Ahmednagar** : Shri RA Shaikh, Vehicle Research and Development Establishment (VRDE)
- Ambernath** : Dr Ganesh S Dhole, Naval Materials Research Laboratory (NMRL)
- Balasore** : Shri Mrinal Goswami, Integrated Test Range (ITR)
Shri Ratnakar S Mohapatra, Proof & Experimental Establishment (PXE)
- Bengaluru** : Shri Satpal Singh Tomar, Aeronautical Development Establishment (ADE)
Smt MR Bhuvaneswari, Centre for Airborne Systems (CABS)
Smt Faheema AGJ, Centre for Artificial Intelligence & Robotics (CAIR)
Dr Josephine Nirmala M, Combat Aircraft Systems Development & Integration Centre (CASDIC)
Dr Sanchita Sil & Dr Sudhir S Kamble, Defence Bioengineering & Electromedical Laboratory (DEBEL)
Dr V Senthil, Gas Turbine Research Establishment (GTRE)
Smt Saima Bashir, Electronics & Radar Development Establishment (LRDE)
Ms Mita Jana, Microwave Tube Research & Development Centre (MTRDC)
- Chandigarh** : Dr Pal Dinesh Kumar, Terminal Ballistics Research Laboratory (TBRL)
: Dr Anuja Kumari, Defence Geoinformatics Research Establishment (DGRE)
- Chennai** : Shri K Anbazhagan, Combat Vehicles Research & Development Establishment (CVRDE)
- Dehradun** : Shri DP Tripathi, Defence Electronics Applications Laboratory (DEAL)
Shri JP Singh, Instruments Research & Development Establishment (IRDE)
- Delhi** : Shri Hemant Kumar, Centre for Fire, Explosive & Environment Safety (CFEES)
Shri Santosh Kumar Choudhury, Defence Institute of Psychological Research (DIPR)
Smt Arun Kamal, DPARO&M, DRDO HQrs
Dr Navin Kumar Soni, Institute of Nuclear Medicine and Allied Sciences (INMAS)
Dr Sujata Dash, Institute for Systems Studies & Analyses (ISSA)
Shri Ashok Kumar, Scientific Analysis Group (SAG)
Dr Rupesh Kumar Chaubey, Solid State Physics Laboratory (SSPL)
- Gwalior** : Dr MK Meghvansi, Defence R&D Establishment (DRDE)
- Haldwani** : Dr Atul Grover, Defence Institute of Bio-Energy Research (DIBER)
- Hyderabad** : Shri Hemant Kumar, Advanced Systems Laboratory (ASL)
Shri Srinivas Juluru, Defence Research and Development Laboratory (DRDL)
Shri Ch Narasimhachari, Defence Electronics Research Laboratory (DLRL)
Shri S Shashi Nath, Defence Metallurgical Research Laboratory (DMRL)
- Jagdalpur** : Shri Khilawan Singh, SF Complex (SFC)
- Jodhpur** : Shri DK Tripathi, Defence Laboratory (DL)
- Kanpur** : Dr Mohit Katiyar, Defence Materials & Stores Research & Development Establishment (DMSRDE)
- Kochi** : Smt Letha MM, Naval Physical & Oceanographic Laboratory (NPOL)
- Leh** : Dr Dorjey Angchok, Defence Institute of High Altitude Research (DIHAR)
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- Mysuru** : Dr M Palmurugan, Defence Institute of Bio-defence Technologies (DIBT)
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- Pune** : Shri Ajay K Pandey, Armament Research and Development Establishment (ARDE)
Dr Vijay Pattar, Defence Institute of Advanced Technology (DIAT)
Dr Ganesh Shankar Dombe, High Energy Materials Research Laboratory (HEMRL)
- Tezpur** : Dr KS Nakhuru, Defence Research Laboratory (DRL)
- Visakhapatnam** : Smt Jyotsna Rani, Naval Science & Technological Laboratory (NSTL)



Contents

COVER STORY	4
INNOVATIONS	6
TEST & TRIALS	8
TOT	10
EVENTS	11



HRD ACTIVITIES	23
RAJBHASHA ACTIVITIES	28
PERSONNEL NEWS	30
SOCIAL ACTIVITIES	32
VISITS	33



LIGHT AS A WEAPON: DRDO'S DEW MARKS INDIA'S DEFENCE MILESTONE

Mastering the technology of disabling missiles, drones and smaller projectiles with Laser-Directed Energy Weapon (DEW) has long been the holy grail of air defence. The DEW will soon be replacing traditional kinetic weapons and missile defence systems due to its ease of operation and cost effectiveness. The proliferation of Unmanned Aerial Systems (UAS) and the emergence of drone swarms as asymmetric threats are driving the demand for DEWs with counter-UAS and counter-swarm capabilities. The extent of havoc can be caused by UAVs and drones is visible in all the recent conflicts like ongoing Russia-Ukraine conflict,

Armenia-Azerbaijan conflicts or Houthis attack on US naval fleets where relatively weaker state and non-state players are accruing disproportionate gains against their stronger adversaries.

Once detected by a radar followed by tracking through Electro-optic (EO) system, laser-DEW can engage targets at the speed of light, and use an intense beam of powerful laser beam to neutralize the target, leading to structural failure or more impactful results. This type of cutting-edge weaponry has the potential to revolutionize the battle space by reducing the reliance on expensive ammunition, while also lowering the risk of collateral

damage. The requirement for cost-effective defence solutions to offset the low-cost drone attacks amidst constrained defence budget is driving the adoption of DEWs by military organizations worldwide.

Prototype of Mk-II(A) DEW system is the result of a prolonged development research of DRDO in the field of DEW at Centre for High Energy Systems and Sciences (CHESS), Hyderabad along with Electronics & Radar Development Establishment (LRDE), Instruments Research & Development Establishment (IRDE), Defence Electronics Research Laboratory (DLRL), and Defence Laboratory (DL) in harnessing the high power of laser





Directed Energy into a potent weapon. Indigenously designed and developed Mk-II (A) DEW system has demonstrated its entire spectrum of capability by engaging the fixed wing drones at long range, thwarting a multiple drone attack and destroying enemy surveillance sensors and antennae.

The lightning speed of engagement, the precision and the lethality delivered at the target within few seconds made it the most potent Counter Drone System. Cost of firing it for few seconds is equivalent to the cost of couple of litres of petrol. Therefore, it has the potential to be a long-term and low-cost alternative to defeat the target what guided missiles currently do.

All the three Services, i.e. Army,

Air Force and Navy are already using the earlier version of DEW Mk-I as part of their air-defence capabilities. This milestone achieved has demonstrated the ability to engage aerial targets at a very long range and, therefore, it will be a major step in Atmanirbhar Bharat. The inclusion of DEW Mk-II (A) in the Services will boost their layered air-defence capability. This landmark achievement will also act as the cornerstone for all the future development of high-power DEWs. The demonstration on 13 April 2025 was witnessed by the Dr Samir V Kamat, Chairman, DRDO & Secretary DDR&D and Dr BK Das, DS & DG (ECS) along with Directors and officers of DRDO laboratories.

The DEW trial at the NOAR, Kurnool is a testimony of

Atmanirbhar Bharat as it has been developed by the R&D and production ecosystem of all stakeholders.

The critical subsystems along with components are designed and developed indigenously by CHESS, DRDO's sister laboratories and academic institutions along with more than 15 Nos. of Indian industries.

The system design and integration along with cutting-edge niche technology of high-power laser beam directed to an aerial target with micro radian accuracy was developed and mastered by CHESS, DRDO. Its success has announced India's arrival in the exclusive and limited club of the global powers who possess the high power Laser-DEW.





DESIGN AND DEVELOPMENT OF INDIVIDUAL UNDER WATER BREATHING APPARATUS FOR T-90 TANK CREW

Defence Bio-engineering & Electromedical Laboratory (DEBEL), Bengaluru has designed and developed Individual Under Water Breathing Apparatus (IUWBA) for T-90 Tank Crew, a life saving equipment, as per approved Provisional Staff Qualitative Requirements (PSQR). The system was designed for enabling the T-90 tank crew for safe escape from the T-90 tank during deep fording in the event of emergency situation (Tank stalling/switching off mid-crossing of water) for a depth of up to 5m. In such unforeseen situation, where the crew is unable to restart the engine, there is no alternative for the crew except to flood the tank and escape via cupola.

Salient Features:

- Closed circuit-based individual breathing apparatus
- Capable to provide breathing support up to 60 min at 5 m depth under water
- Regenerates Oxygen from

exhaled carbon dioxide (CO₂)

- Demand-based breathing
- Two mode breathing, i.e. from atmosphere and from apparatus
- Lightweight (~ 5.25 kg) and modular

IUWBA has successfully completed its functional performance, i.e. Ingress and Egress from T-90 tank cupolas, compatibility during T-90 tank operations and breathing support of 60 minutes under water during field evaluation trial conducted by ACC&S, Ahmednagar of Indian Army.

IUWBA has exhibited its satisfactory performance in simulated environmental conditions, i.e. high temperature, damp heat, low temperature, dust, vibrations and bump and successfully completed DGQA evaluation trials conducted by CQA-FFE, Pune. Maintenance Evaluation Trials (MET) conducted by MAG No. 7, Medak, Telangana on IUWBA was also completed successfully.

Technology of IUWBA is transferred to six industries out of which ToT is absorbed by three DEBEL's ToT partners: M/s JK Fenner India Ltd, Chennai; M/s Shiva Industries, Kanpur; and M/s Elite Polymer, Howrah.

The DAC clearance has

been accorded to IUWBA and presently CNC has been concluded for production of 947 sets (Phase I) by the Indian Army. Balance quantity of 3080 (Approx.) will be completed in Phase II and Phase III.



INDIAN ARMY FINALISED CONTRACT FOR PROCUREMENT OF LIFE SAVING EQUIPMENT FOR EXTREME HIGH ALTITUDE

The Indian Army has released a purchase order for the procurement of Qty. 5761 nos. of One-Man High Altitude Pulmonary Oedema (HAPO) Chambers equipped with automation units from Defence Bioengineering & Electro-medical Laboratory (DEBEL), Bengaluru, developed by ToT holders of DRDO. The purchase order dated 4 February 2025 has been placed on three qualified DEBEL-developed ToT holders in the ratio of 50:30:20. The total order value is Rs. 147.53 Cr.

The One Man HAPO Chamber is a life-saving device used for protecting soldiers affected by Acute Mountain Sickness (AMS) & HAPO and other CAPF posted in far-flung and extreme high-altitude regions of Himalayan borders. The forces deployed in the high-altitude regions are subjected to various physiological stresses due to severe climatic conditions. Major problems faced by soldiers positioned at high altitude are extreme cold weather, low barometric pressure, and hypoxia. Low barometric pressure

leads to HAPO, a condition that leads to the accumulation of fluids in the lungs, which could be rapidly fatal if not attended to immediately. The technology is indigenously developed by DEBEL Bangalore, and IPR is protected by Patent No. 363717.

The salient features of the HAPO chamber are:

- The HAPO chamber (made from polyamide coated with neoprene, i.e. polychloroprene) can withstand harsh military environments. The HAPO chamber has three transparent windows to allow light inside and for the placement of medical equipment, if any.
- The HAPO chamber is automatically inflated to 130 $\pm$ 10 mm Hg, which simulates a descent of about 6,000-8,000 feet, thereby ensuring that the patient is not de-acclimatized.
- An intentional leak (set at 20 LPM) valve avoids the buildup of carbon dioxide inside the HAPO chamber.
- The pressure management is

automatic and does not require manual intervention except ON/OFF and during initial pressure building.

- The HAPO automation unit is field usable. A built-in rechargeable battery provides about 5-6 hours of endurance.
- The battery is automatically charged when the system operates with AC mains. Alternatively, it can also be charged with an optional lightweight and foldable solar panel.

HAPO chambers are also being procured from time to time by the Indian Army, ITBP, BSF, SF, BRO, etc. This is the first time that such a large bulk purchase order has been released by the Indian Army, which is a testament to the technological excellence achieved. The shipment will boost the morale of the soldiers fighting in the most unforgiving borders to protect our great nation, besides contributing to the industrial growth. The product has good export potential and is likely to be used as dual-use technology in some allied areas.





DRDO CONDUCTS SUCCESSFUL RELEASE TRIALS OF LONG-RANGE GLIDE BOMB 'GAURAV' FROM SU-30 MKI AIRCRAFT

The Defence Research and Development Organisation (DRDO) successfully conducted the release trials of the Long-Range Glide Bomb (LRGB) 'Gaurav' during 8-10 April 2025 from the Su-30 MKI aircraft. During the trials, the weapon was integrated into multiple stations in different warhead configurations, with land targets on the island. The trials successfully demonstrated a range close to 100 km with pinpoint accuracy.

LRGB 'Gaurav' is a glide bomb in the 1,000 kg class, designed and developed indigenously by Research Centre Imarat (RCI), Armament Research and Development Establishment (ARDE), and Integrated Test Range (ITR), Chandipur. Senior officials of DRDO and the Indian



Air Force (IAF) participated and reviewed these trials.

The system has been realised with the support of development-cum-production partners Adani Defence Systems & Technologies, Bharat Forge, and various MSMEs. The trials are paving the way towards induction of the weapon into the IAF. The Center for Military Airworthiness and Certification and the Directorate General of Aeronautical Quality Assurance contributed to



certification and quality assurance.

Hon'ble Raksha Mantri Shri Rajnath Singh complimented DRDO, IAF, and industry for successful development trials of 'Gaurav.' He said the development of LRGB will further enhance the capabilities of the Armed Forces to a significant extent. Secretary, Department of Defence R&D, and Chairman DRDO Dr Samir V Kamat also congratulated the entire DRDO team on conducting the successful release trials.

DRDO & INDIAN ARMY CONDUCT FOUR SUCCESSFUL FLIGHT-TESTS OF ARMY VERSION OF MRSAM

The Defence Research and Development Organisation (DRDO) and the Indian Army conducted four successful flight tests of the Army version of the Medium-Range Surface-to-Air Missile (MRSAM) from Dr APJ Abdul Kalam Island off the coast of Odisha during 3-4 April 2025.

The four operational flight trials were carried out against high-speed aerial targets. The missiles intercepted the aerial targets and destroyed them, registering direct hits. The trials were carried out to intercept four targets at long range, short range, high altitude, and low altitude, proving the

operational capability.

The flight tests were carried out with the weapon system in operational condition. The weapon system's performance was confirmed using flight data collected by range tools such as radars and electro-optical tracking systems set up by Integrated Test



Range, Chandipur. The flight tests were carried out in the presence of senior officials from DRDO and the Indian Army.

The trials were carried out by the Indian Army from Eastern and Southern Commands under DRDO guidance. These trials have proven the operational capability of both Army Commands and paved the way for operationalisation of weapon systems in two regiments.

The MRSAM is developed jointly by DRDO and Israel Aerospace Industries for use by the Indian Army. The MRSAM Army weapon system comprises multi-function radar, a command post, a mobile launcher system, and other vehicles.

Hon'ble Raksha Mantri Shri Rajnath Singh has congratulated DRDO, the Indian Army, and the industries for the successful flight tests. Four successful tests have re-established the capability of the weapon system in intercepting targets at critical ranges, he said.

Secretary, Department of Defence R&D, and Chairman DRDO Dr Samir V Kamat complimented the teams involved in the successful flight trial, terming them as major milestones for building operational capability of the Indian Army.



DRDO & IN SUCCESSFULLY FLIGHT-TEST INDIGENOUSLY-DEVELOPED VLSRSAM

The Defence Research & Development Organisation (DRDO) and the Indian Navy conducted the successful flight test of the indigenously developed Vertically-Launched Short-Range Surface-to-Air Missile (VLSRSAM) from the Integrated Test Range (ITR), Chandipur, off the coast of Odisha on 26 March 2025. The flight test was carried out from a land-based vertical launcher against a high-speed aerial target at very close range and low altitude. It has established the near-boundary-low-altitude capability of the missile system.

During the test, the target was completely destroyed by the missile executing the high turn rate required for engaging targets at very close range and establishing

the missile's agility, reliability, and pinpoint accuracy. The test was conducted with all weapon system elements deployed in combat configuration. These elements, including the missile with an indigenous radio frequency seeker, multi-function radar, and weapon control system, have performed as per expectations. The performance of the system was validated by the flight data captured by various range instruments developed by ITR Chandipur.

Congratulating DRDO, the Indian Navy, and the industry, Hon'ble Raksha Mantri Shri Rajnath Singh referred to the missile system as proof of India's strong design and development capabilities in defence R&D. It will be an excellent force multiplier for



the Indian Navy, he said.

LDAM TECHNOLOGY TRANSFER TO INDUSTRY

The Defence Research and Development Laboratory (DRDL), Hyderabad, has developed a Low Density Ablative Material (LDAM) coating for the thermal protection of missile systems. This low-density thermal protection coating is widely used for the external thermal protection of various missile systems. LDAM can be applied in spray or putty form on metallic as well as composite structures in varying thicknesses as per design requirements. The



Licensing Agreement for Transfer of Technology (LAToT) for LDAM was handed over to Industries during Aero India 2025.

MOD INKS RS 6,900 CR CONTRACTS FOR 155 MM/52 CALIBRE ATAGS

The Ministry of Defence (MoD) has signed contracts with Bharat Forge Limited and Tata Advanced System Limited for the procurement of 155 mm/52 Caliber Advanced Towed Artillery Gun Systems (ATAGS) and High Mobility Vehicle 6x6 Gun Towing Vehicles, respectively, at a total cost of about Rs 6,900 crore. The contracts were signed in the presence of Defence Secretary Shri Rajesh Kumar Singh in New Delhi

on March 26, 2025.

With the signing, total contracts worth Rs 1.40 lakh crore have been signed by MoD for capital procurement to date in the current financial year, 2024-25. During the contract signing, the project director of ATAGS from DRDO's Armament Research and Development Establishment, Pune, who played a pivotal role in the realisation of the project, was felicitated by the Defence

Secretary as an honor for his immense contribution.

The 155 mm/52 Caliber ATAGS will replace the vintage and smaller caliber guns and enhance the artillery capabilities of the Indian Army. The procurement of this gun system marks a significant milestone in the modernisation of the artillery regiments, enhancing operational readiness. ATAGS, renowned for its exceptional lethality, will play a crucial role in





bolstering the Army's firepower by enabling precise and long-range strikes.

Being the first major procurement of towed guns from the private sector by the

Indian Army, the project will provide a boost to the Indian gun manufacturing industry in particular and the indigenous defence manufacturing ecosystem as a whole. This project is a proud

flag-bearer of Aatmnirbhar Bharat by significantly contributing to employment generation and economic growth in consonance with the Make-in-India initiative.

ADVANCED ARMoured PLATFORMS (TRACKED & WHEELED): METAL CUTTING CEREMONY

Vehicle Research and Development Establishment (VRDE), Ahmednagar has undertaken a flagship project "Design and Development of Advanced Armoured Platform (AAP)-VIKRAM VT 21" to develop AAP (Tracked), AAP (Wheeled) and 30 mm crew-less turret. This is a potential solution for the Indian Army's requirement of indigenous FICV. The AAP has been designed with host of advanced systems and technologies including high power diesel engine with fully automatic transmission, double-floor blast protection, composite add-on armour, 30 mm crew-less turret with APFSDS ammunition, 3rd Gen ATGMs and solid-state electric drives, digital driver dash board, crew vision system, etc. Firing trials for proving of new feeding system and the gun mount of 30 mm crewless turret has also been successfully completed by VRDE.

The project has entered in crucial phase of realization with the development partners M/s TASL and M/s BFL. In view of this, a metal cutting ceremony was conducted on 2 April 2025 at their premises. Dr Samir V Kamat, Secretary DDR&D & Chairman DRDO graced the occasion of commencement of hull

manufacturing (prototype welding process) at premises of both the aforementioned industry partners. The event was attended by Prof. Prateek Kishore, Director General (ACE), Shri GRM Rao Director, VRDE and Shri K Senthilkumar, Project Director-VIKRAM VT-21.

Dr Kamat appreciated VRDE for conceiving and designing state-of-the-art AAP, both Tracked and Wheeled. He lauded the efforts of both the industry partners for initiating

manufacturing of both platforms. Prof. Kishore congratulated VRDE and development partners and emphasized on the importance of the project to DRDO, industry as well as the Indian Army. Shri Rao appreciated the efforts of industry partners for the development of VIKRAM VT 21 and brought out that synergy between DRDO and industry shall play an important role in the design and development of high quality indigenous future land system platforms.





RAISING DAY 2025 CELEBRATIONS AT ITM

Institute of Technology Management (ITM), Mussoorie, celebrated its 64th Laboratory Raising Day on 7 March 2025. Shri LC Mangal, DS & DG (TM), graced the event as the Chief Guest. Ms Anita Mohindra, Sc 'F,' Dean, Management Services, delivered the welcome address and also gave a pictorial glimpse of activities at ITM during the previous year, 2024.

Director, ITM, in his address, highlighted the overall performance and achievements of the institute during the preceding year and congratulated 'Team ITM' for their contribution. He urged all employees to continue their best efforts to achieve excellence in future endeavors. In his keynote address, Chief Guest Shri Mangal congratulated all employees for the 64th Lab Raising Day and highlighted the



importance of ITM towards the training of DRDO employees and nation building. He also released the ITM Training Calendar 2025-26 and the local Hindi magazine, 'Srijan'. Lab Level Commendation Certificates were presented to the employees on the occasion by the Chief Guest, and he also felicitated

the employees who completed 25 years of service at DRDO. Apart from this, various events such as photography competitions and slogan competitions were organized and sports prizes were also distributed. Gp Captain MP Kundran concluded the event with a vote of thanks.

NATIONAL SCIENCE DAY CELEBRATED AT VRDE

Vehicles Research and Development Establishment (VRDE), Ahmednagar celebrated National Science Day 2025 with a great deal of fervor and enthusiasm. It serves as a reminder regarding the role of science and technology in national development and inspires young minds to pursue careers in R&D. The National Science Day Oration, 'Modelling & Testing of Crew Cabin for Vehicle-Mounted Large-Caliber Guns Subjected to Muzzle Blast', authored by Shri Muddaboana Sai Munesh Kumar, Sc 'C' was presented by Shri Ashutosh Maurya, Sc 'B' on

his behalf. The chief guest for the occasion was Dr Yogesh Velankar, Professor and Director, Symbiosis Institute of Staff Training and Professional Development under the aegis of Symbiosis Open Education Society, Pune. He delivered the keynote address on the topic 'Towards Viksit Bharat: Fostering an Innovative and Growth Mindset for a Sustainable Future.' In the concluding remarks, Shri GRM Rao, OS & Director VRDE, brought out the need & importance of innovative initiatives by R & D organizations & the scientific community for nation building.



INTERNATIONAL WOMEN'S DAY CELEBRATION

International Women's Day (IWD) is celebrated globally on 8 March each year to recognize the achievements of women and reflect on the progress made towards gender equality. To mark the occasion, the following laboratories of DRDO celebrated IWD at their respective locations:

CAIR, Bengaluru

The IWD 2025 was celebrated at the Centre for Artificial Intelligence & Robotics (CAIR), Bengaluru, on 17 March 2025, with Smt Suma Varughese, DS & DG (MCC), as the Chief Guest. The event started with a formal inauguration in the presence of Dr Rituraj Kumar, OS & Director, CAIR, and Smt Desiraju Padma, OS, Chairperson of the Women's Cell, CAIR. Smt Paromita Choudhury, Sc 'F', Chairperson IWD celebrations committee, extended a warm welcome to the Chief Guest and to all CAIR employees.

Smt Suma Varughese, DS & DG (MCC) in her address emphasized how empowered women inspire and empower others in their journey. Smt Padma, addressed the audience, highlighting the importance of supporting and encouraging women's growth within the organization. Dr Rituraj Kumar briefed about the organization's commitment to creating an environment that encourages growth, collaboration, and success for all.

The program concluded with a vote of thanks by Smt Savita DK, Sc 'F'.



DLRL, Hyderabad

Defence Electronics Research Laboratory (DLRL), Hyderabad, celebrated IWD 2025 on 11 March 2025. Dr M Chakravarthy, Officiating Director, and Sri K Murali, Associate Director, also graced the occasion. Dr Vishnupriya Chitti, educationist & parent educator, was invited as the Guest Speaker to deliver the talk on parent education and engagement. All the women employees and many male employees were present and participated in the celebrations.

In her address, Chairperson, IWD highlighted the significance of the day and the need to accelerate action to address the systematic barriers and biases that women face, both in personal and professional fronts. Dr Chakravarthy also addressed the gathering and congratulated all the women of the fraternity of DLRL on the occasion of Women's Day. A video on inspiring women of the nation and also about DLRL was played, which highlighted that women have no bounds in



various professions. The senior women of the laboratory due for superannuation this year were felicitated for their dedicated service.

DMRL, Hyderabad

Defence Metallurgical Research Laboratory (DMRL), Hyderabad, marked the IWD 2025 on 12 March 2025 with celebrations centered around the global theme, 'Accelerate Action.'

The event commenced with the traditional lighting of the lamp followed by an invocation song by Shri D Anjaneyulu, Stores Officer. Dr NV Rama Rao, Sc 'F' & Chairman, Works Committee, delivered the welcome address. Mrs VL Niranjani, convener of the Women's Cell, extended warm greetings to all women employees and presented a report on the Women's Cell activities at DMRL.

The function was presided over by Dr K Gopinath, OS & Associate Director and OITC, DMRL, who highlighted the incredible balancing act of women in their personal and professional lives. Shri Nishant Manish, Vice President, DEFMETLAB Workers National Union; Shri M Reetesh, President, DMRL Karmika Sangh; and Shri Rashid Ali, Vice Chairman, Works Committee, also shared their thoughts on the significance of accelerating progress toward gender equality and extended their best wishes to all women employees.

The highlight of the event was a keynote address by Dr Manjula S Nair, Project Director, High Thrust Electric Propulsion, LPSC, ISRO, who presented a talk titled 'You are Unstoppable!!!'

Adding to the celebrations, two



women personnel from DMRL, Ms Anand Ashwini Avinash Chander, Sc 'B' and Ms Satabdi Roy, TO 'A,' represented the organization at 'SAMPURNA-Scientific Altruists Making Positive Upliftment in Research through New Achievements DRDO IWD-2025' held during 7-8 March 2025 at DRDO HQrs. Ms Aswini presented a research paper at the event, which was dedicated to recognise the contributions of women in advancing India's vision of Atmanirbhar and Viksit Bharat by 2047.

DMSRDE Kanpur

Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, celebrated IWD 2025

on 6 March 2025 to honour the achievements and contributions of women in various fields. The Chief Guest of the event was Ms Diksha Jain, IAS, Chief Development Officer (CDO), Kanpur. The celebration began with the heartfelt welcome address by Dr Kavita Agarwal, Sc 'F' & Head, Women Cell. She shared the remarkable strides made by the women cell members of DMSRDE. This was followed by an address of Dr Mayank Dwivedi, OS & Director, DMSRDE. He discussed the significance of Women's Day and the role of women in building a better society. Mrs Jyoti Srivastava, Sc 'G' & Advisor, Women Cell, gave a short talk on Women Empowerment. The Chief Guest in her speech



emphasized giving equal opportunity to women in every sphere of life. The event concluded with a vote of thanks by Smt Savita Verma, Admin Officer, followed by the national anthem.

HEMRL, Pune

IWD 2025 was celebrated at the High Energy Materials Research Laboratory (HEMRL), Pune, on 13 March 2025. About 350 women employees of HEMRL participated in the celebration with great enthusiasm. As part of the celebrations, the HEMRL women's council organised 'ABHIRUCHI,' an exhibition by women entrepreneurs on 11 March 2025. Prof. Prateek Kishore, DS & DG (ACE), inaugurated the exhibition. Many employees of HEMRL visited the stalls and purchased various items from the women entrepreneurs.

Ms Suma Varughese, DG (MCC), was invited as the Chief Guest. She shared her experience and knowledge regarding women's empowerment and self-resilience. The talk was well appreciated by



the audience and raised awareness about the overall progress of women in society.

On the occasion, the HEMRL women's council magazine, 'URJA,' was released by the dignitaries.

IRDE, Dehradun

Instruments Research & Development Establishment (IRDE), Defence Electronics Application Laboratory (DEAL), and Institute of Technology Management (ITM) jointly celebrated IWD 2025 on 21 March 2025 to commemorate the contribution of women

employees in the technologies of electro-optics, communication, and technology management. The event was held at IRDE, and it brought together women from three different laboratories of DRDO.

Prof. Surekhha Dangwal, Vice Chancellor of Doon University, Dehradun, and Ms Shweta Choubey, IPS, Commandant IRB, Dehradun, were the Chief Guests on the occasion. Both dignitaries shared experiences in their respective fields. Dr Ajay Kumar, OS & Director IRDE, also addressed the gathering, highlighting the contributions made by women in the workplace as well as at home.

He encouraged all with his inspiring words to work together in tandem to break down the barriers that prevent women from reaching their full potential and emphasized gender equality at the workplace. Shri Manoj Kumar Dhaka, OS & Director, DEAL, addressed the gathering, highlighting the role of women in shaping the future. He emphasized the role of women in achieving success.

The event showcased the fusion of three premier laboratories as one family, instilling the message of togetherness in the workplace.



LRDE, Bengaluru

IWD 2025 was celebrated at Electronics & Radar Development Establishment (LRDE), Bengaluru, on 26 March 2025 with active participation from all employees of LRDE. Dr Arathi VB, founder of Vibhu Academy and Dr Sundaravalli A, Dean, Natural Sciences, Mount Carmel College, were the Chief Guest and Guest of Honour for the event. Shri Gampala Viswam, Director, LRDE and Chairman, Women's cell, LRDE presided over the function. Spouses of Associate Directors of LRDE and senior officers from O/o DG ECS were specially invited to grace the occasion. Dr Arathi spoke about the multifaceted role played by the Indian woman, the challenges faced by her in all spheres of life and introduced many real-life success stories with interesting historical references. Dr Sundaravalli delivered a presentation on the role of nutrition for the overall health and wellbeing of women. Later, Director distributed mementos for the retiring women employees of LRDE and felicitated the guests as part of the celebrations.



MTRDC, Bengaluru

IWD 2025 was celebrated at the Microwave Tube Research & Development Centre (MTRDC), Bengaluru, on 11 March 2025. Various events like rangoli, singing, cooking without fire



competitions, cultural events, etc., were organised on that day. Dr Shubha Madhusudhan, Senior Clinical Psychologist from Fortis Hospital, Bengaluru, graced the occasion as the Chief Guest.

On the onset, Dr SK Datta, OS & Centre Head, MTRDC, welcomed all. Dr Madhusudhan delivered a talk on women's empowerment. The Hindi home magazine 'UMANG' was released by the Chief Guest. Smt Mala Ramaswamy, SC 'G', proposed the vote of thanks.

NSTL, Visakhapatnam

IWD 2025 was organized in a befitting manner on 13 March 2025 at Naval Science & Technological Laboratory (NSTL), Visakhapatnam. The event was graced by Dr Abraham Varughese, OS & Director, NSTL; Smt R Sasi Sri, First Lady of Naval Systems &

Materials Cluster; Smt Ilin Dinah Abraham, First Lady of NSTL & President MKM (MKM); Smt Lakshmi Mukkavilli, Managing Director, PATRA India BPO Services and Smt K Sangeeta, IDAS, IFA (R&D). Smt Binita Sahu welcomed the gathering and highlighted the presence of committees like the Women Cell and Internal Complaint Cell (ICC) at NSTL, which focus on women's welfare and safety in the workplace.

A key highlight of the celebration was the launch of a book written by Smt Kanti Rekha, a member of MKM, titled 'The Modern Woman's Guide: Financial Independence'. On the occasion, the MKM E-newsletter was released and a free medical camp was organized for all women fraternity of NSTL.





NATIONAL SAFETY WEEK CELEBRATION

Every year, March 4 is observed as National Safety Day and March 4-10 as National Safety Week in India to highlight safety measures and explore ways to make the office a safer place for people. To mark the occasion, the following laboratories of DRDO celebrated National Safety Week (NSW) with the theme "Safety & Well-being Crucial for Viksit Bharat" at their respective places:

CAIR, Bengaluru

National Safety Week is celebrated annually at Centre for Artificial Intelligence & Robotics (CAIR), Bengaluru, from 4-10 March every year. This year, CAIR has organized the event on 6 March 2025 by inviting Mr Shanmukha, Manager of Safety and Environment, Aerospace Division, HAL, who has vast experience in safety measures. To create awareness among the employees, banners were displayed at the main gate and the systems and admin blocks of CAIR. The safety committee of CAIR distributed the fire & safety pocket manual soft copy to all users during the event. Smt Desiraju Padma, OS & Chairperson, Safety Committee, welcomed the speaker and the gathering. Shri Sanjaya, Sc 'E', member of the safety committee,

introduced the speaker to the audience and his achievements. Finally, Mr Shanmukha, Manager, Safety and Environment, delivered a talk on 'Industrial and Environmental Safety'.

DGRE, Chandigarh

National Safety Week 2025 (NSW 2025) was organised at Defence Geoinformatics Research Establishment (DGRE), Chandigarh, during 4-10 March. During the week, various activities were conducted at DGRE, viz., safety mock drills by the Fire & Safety Group and slogan writing and painting competitions. Under the training-cum-awareness event, guest lectures were delivered by Dr Usha Dutta, Post Graduate Institute of Medical Education & Research (PGIMER), Chandigarh, and Ms Ramandeep Beniwal, Govt. Medical College and Hospital (GMCH), Chandigarh, followed by internal members talks on laboratory safety manual/policy, avalanche prediction quality assessment, GeoInt data quality assessment, and DRDO Q&R guidelines to encourage the adoption of QRS culture in the laboratory. The event was concluded with a reminder of shared responsibility in creating a secure environment, reinforcing

the significance of safety and well-being in achieving sustainable and equitable growth for a developed nation.

DMRL, Hyderabad

Defence Metallurgical Research Laboratory (DMRL), Hyderabad, celebrated the 54th NSW 2025 during 20-21 March 2025. The celebrations kicked off on 20 March, 2025, with all employees being greeted with safety badges at the main gate. A live firefighting demonstration was conducted, where employees received hands-on training on the proper use of different types of fire extinguishers, including Class A, B, and C. This practical session aimed to empower employees with the knowledge and skills needed to handle fire emergencies.

The highlight of the proceedings was a safety talk by the Chief Guest, Shri Kamlesh Rana, Sr DGM, Head-EHS, L&T Special Steels, who shared invaluable insights on 'Industrial Safety'. The event began with a welcoming address by Shri Chandrakanth Parlikar, Sc 'F' and in charge of the Safety Committee, who highlighted the significance of NSW Week, workplace safety, and the vital role of the safety committee in fostering a culture of safety within the laboratory. Dr K





Gopinath, OS & Associate Director, DMRL, discussed the importance of cultivating a safety-conscious work culture. He emphasized that building a system rooted in safety requires the commitment of every individual at DMRL.

In his lecture, Shri Rana included video presentations and real-life case studies of workplace accidents and discussed effective strategies to prevent similar incidents. Shri Rana also covered crucial topics, such as the importance of safety, Environmental, Health, and Safety (EHS) policies, risk management, accident investigation, and fire safety. He stressed the importance of each employee maintaining vigilance and taking sustained efforts to create a safe working environment for themselves and their colleagues.

DMSRDE Kanpur

The Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, celebrated the 54th NSW 2025 during 4-10 March 2025. The event was inaugurated by Dr Mayank Dwivedi, OS & Director, DMSRDE. He said that safety should be a matter of concern for every individual and expressed his satisfaction that there are no major safety issues in the establishment. Shri Kamlesh Kumar, Sc 'E' & Head, QRS, delivered a lecture on 'Fire & Safety Practices'. A mutual aid fire mock drill-cum-awareness and training program about firefighting equipment was conducted by the fire & safety experts from Govt. Fire Station, Jajmau, Kanpur, and COD, Kanpur. Shri Kamlesh Kumar and his team also conducted a safety



quiz. The Director, DMSRDE distributed the prizes to the winners.

HEMRL, Pune

High Energy Materials Research Laboratory (HEMRL), Pune, celebrated the 54th National Safety Week during 4-10 March 2025. Shri Navaneeth Mohan N, Joint Director of Factories, Karnataka, was the Chief Guest of the event. Dr Himanshu Shekhar, Sc 'G' & Officiating Director, addressed the gathering and stressed the importance of a very positive safety culture and urged the employees to keep safety the priority at the workplace and that there will be zero tolerance towards safety violations. The 28th issue of the Safety, Health & Environment (SHE) bulletin was released at the hands of the Chief Guest. Prizes were distributed to winners of various competitions and for the best articles of SHE Bulletin 2025.

The Safety Rolling Trophy for the year 2024-25 was awarded to the Igniter Division (Technical Division) and the Security Division (Support Division), respectively.

Shri Mohan, the Chief Guest, gave a talk on 'Management of Human Factors and Psychosocial Issues' and covered motivation for the Frozen Middle, mindset, attitude, values, standards,

judgment, motive, ethics, beliefs, self-evaluation & evaluation, and prevention of risk under risk management.



INMAS, Delhi

The 54th National Safety Week 2025 was celebrated at the Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi, during 4-10 March 2025. The focus was on building a positive safety culture, motivating employees to make the workplace safer, and promoting participation in various safety activities. All the employees of the establishment took the safety and health pledge as per the guidelines.

A technical presentation on 'Safety & Well-Being Crucial for Viksit Bharat' was delivered by Dr Rajiv Narang, OS & Ex-Director, CFEES, DRDO, on 7 March 2025 in the presence of senior scientists and staff.



IRDE, Dehradun

Instruments Research & Development Establishment (IRDE), Dehradun, celebrated NSW 2025 during 4-10 March 2025. Shri Anup Dutt, Sc 'E', DEAL, Dehradun, delivered a lecture to sensitize IRDE employees about industrial & fire hazards and mitigation techniques. He highlighted the causes of industrial & fire hazards & emphasized the do's and don'ts in the event of industrial & fire incidents. Dr Ajai Kumar Sahani, Sc 'G' & Secretary of Safety Council, thanked Shri Dutt for his very informative lecture. He also thanked IRDE employees & Safety Council members for participation in safety measures. A safety quiz was also organised during the event for the employees of IRDE to show the importance of safety in day-to-day activities. A slogan competition on safety and its necessity was also conducted, and the three best slogans were awarded with prizes.



MTRDC, Bengaluru

The 54th NSW 2025 was celebrated at the Microwave Tube Research & Development Centre (MTRDC), Bengaluru, during 4-10, March 2025. Several events were organised during the safety week. The MTRDC safety team organised a safety quiz to create awareness of safety. All employees of MTRDC were given hands-on



training in the operation of CO₂-based fire extinguishers by the safety team. The safety pledge was administered by Dr SK Datta, Centre head, MTRDC. The pledge was followed by a safety lecture on 'Industrial Safety Aspects and Practices' by Shri Ravi L, Additional Chief Safety Officer, BEL, Bengaluru.

NPOL, Kochi

Naval Physical and Oceanographic Laboratory (NPOL), Kochi, organised 54th NSW to enhance the safety awareness among employees. Competitions like essay, slogan, cartoon, poster, and story in three languages focusing on different aspects of safety were conducted for employees. The National Safety

Day was celebrated on 4 March 2025 with a series of events. The program started with flag hoisting by the senior technician. This was followed by a safety day pledge by the NPOL fraternity. The pledge was led by Dr D Seshagiri, OS & Director, NPOL. A fire mock drill was conducted by the NPOL firefighting section involving the firefighting team from the Naval Armament Depot (NAD) and the Alwaye, Kerala State Fire Brigade.

On 5 March 2025, the concluding day of the celebration, a quiz on safety topics was conducted by Shri RP Raju, Sc 'F'. The quiz was followed by an enlightening safety awareness talk on 'Road Safety' by Shri Manoj, RTO Enforcement. Director NPOL distributed the prizes to winners.



VIGILANCE AND SECURITY WORKSHOP

IRDE, Dehradun

Instruments Research & Development Establishment (IRDE), Dehradun, conducted a Vigilance and Security Awareness on 26 March 2025. A lecture on 'Vigilance on FE Procurement Cases' was delivered by Shri Rajiv Saini, Stores Officer, IRDE. The lecture focused on vigilance matters while making FE procurement. Another lecture on 'Awareness on Security' was also conducted in which all the points that are necessary for security awareness were discussed.



ISSA Delhi

The Institute for Systems Studies & Analyses (ISSA), Delhi, conducted a Vigilance Awareness lecture on 13 March 2025. Shri Anurag athak, Sc 'E' & Vigilance Officer, briefed about the different vigilance aspects to be compiled on a routine basis while carrying out the official activities. He delivered a lecture on the handling of classified documents and information.



DRDO PARTICIPATION IN VARIOUS EVENTS

Techkriti 25, IIT, Kanpur

Techkriti 2025, Asia's largest intercollegiate technical and entrepreneurial festival, was held at IIT, Kanpur, during 27-30 March 2025. Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, was the nodal laboratory for organising the DRDO exhibition at the





event. Chief of Defence Staff (CDS) General Anil Chauhan inaugurated the event on 27 March 2025. DFTM, DHRD, and DIA-CoE (IIT, Kanpur) participated in the event. DMSRDE showcased various indigenously developed technologies, namely, BPJ Level-6, ACF-based CBRN Suit Mk-VI, Advanced Riot Protection Suit, etc., in the event. Dr Gobardhan Lal, Sc 'F' was the nodal officer for the event.

Vendor Development Programme-Cum-MSME Expo2025 at Kanpur

Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, participated in Vendor Development Programme cum MSME Expo 2025, organised during 18-19 February 2025 at MSME- Development & Facilitation Office, Fazalganj, Kanpur (UP). The primary objective of the program was to enhance the development of MSEs as potential vendors for central government ministries, departments, CPSUs, and state PSUs. DMSRDE displayed various



products in its stall during the Expo. During the two days of exhibition, the DMSRDE stall attracted numerous visitors from industry, academic institutions, and PSUs. Dr Gobardhan Lal, Sc 'F' was the coordinator for the event.

Technex 25 at IIT-BHU, Varansi

Technex'25, an annual technical festival organised by IIT (BHU), Varanasi, during 28 February 2025 to 2 March 2025. Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, was the nodal laboratory for organizing the DRDO exhibition at the event. DTTC Lucknow, DFTM, DHRD, and DIA-CoE (IIT-BHU)

participated in the event. DMSRDE showcased various indigenously developed technologies, namely, BPJ Level-6, ACF-based CBRN Suit Mk-VI, Advanced Riot Protection Suit, etc., at the event. Dr Gobardhan Lal, Sc 'F' was the nodal officer for the event.

Viksit Bharat- Viksit Uttarakhand

Instruments Research & Development Establishment (IRDE), Dehradun, participated in the 'Viksit Bharat Viksit Uttarakhand' exhibition, organized by Tarmeh Events at Nehru Stadium, Roorkee, Uttarakhand, during 4-6 March 2025. The exhibition was part of 'Viksit Bharat 2047 – Innovate India,' a





Govt. of India initiative with the vision to make India a developed nation by 2047. The main objective of the exhibition was to provide a platform for highlighting the development, policies, welfare programs, shared innovations, and department's joint collaboration for promoting Indian industries. The government's schemes, policies, achievements, priorities, and plans dominated the exhibition. IRDE was the nodal laboratory for the DRDO pavilion. Defence Electronics Application Laboratory (DEAL), Dehradun, also participated in the exhibition. IRDE and DEAL presented a range of exhibits at the exhibition. The DRDO pavilion was awarded the best presentation award in the exhibition. Dr Vinay Kumar, Sc 'E' of IRDE, received this award.

NMRL's participation in Destination Goa 2025 exhibition

Naval Materials Research Laboratory (NMRL), Ambarnath, participated in 3rd Destination Goa 2025 exhibition, held at Panjim. The exhibition was inaugurated by Shri Sadanand Tanavade, MP, Rajya Sabha, Goa, and Shri Rohan Khaunte, Minister of Tourism, Goa. Various central government organizations, including CBC, ICMR, GeM, ISRO, GSI, and RBI, along with DRDO laboratories such as NMRL, NPOL, DMRL, and DYSL, participated and showcased their technologies during the event. The Hon'ble Chief Minister of Goa, Shri Pramod Sawant, visited the exhibition.

The valedictory function was graced by Hon'ble Shri Mauvin Gudioho, Minister of Transport, Industries, Panchayat Raj, and Protocol, Government of Goa, who delivered an inspiring lecture as the Chief Guest. The DRDO stall attracted significant attention from visitors, with students shown keen interest in learning about emerging technologies.



DR AMBEDKAR'S ANNIVERSARY CELEBRATION

Naval Science & Technological Laboratory (NSTL), Visakhapatnam, organized Dr BR Ambedkar 134th birth anniversary celebration on 14 April 2025. The Chief Guests Dr RV Haraprasad, DS & DG (NS&M); Dr Abraham Varughese, OS & Director, NSTL; the Guests of Honour Sri MVS Sarma, Ex-MLC, Uttarandhra Graduates Constituency;

Sri B Bala Jawahar, IDAS, Additional Controller, Area Accounts Office (Navy), Visakhapatnam; graced the occasion. Sri V Babu Prasad, Sc 'F' gave the opening remarks; Sri U Urban Kumar, S 'E' & President, NSTL SC/ST Employees Association and Sri Amarjeet, Member NSTL SC/ST Employees Association addressed the gathering. During his address,

Dr Varughese suggested all to read the books written by Dr Ambedkar and opined that Ambedkar's vision is most appropriate to Amrit Kal. The Chief Guest Dr Haraprasad summated the life of Dr Ambedkar and presented him as the best

visionary that we have in the entire world. Dr HN Das, Sc 'G' & Chairman Works Committee; Sri Akiri Suneel, President, NSTL Civil Employees Union; Sri Alok Chand, Secretary, Works Committee; also participated in the celebration.





A DECADE OF CONTINUOUS LEARNING: IN-HOUSE TRAINING INITIATIVE AT DMRL

In response to guidelines received from DHRD, DRDO HQrs referring to directives from the Department of Personnel & Training (DOPT, Min of Personnel) in 2015, DMRL took proactive steps to initiate in-house training programs for all employees, with a special focus on Group B and Group C staff. This initiative was introduced as part of a broader strategy to enhance workforce capabilities by improving Knowledge, Skills, and Attitude (KSA).

Recognizing the importance of structured learning in a rapidly evolving work environment, the HRD group, DMRL devised and implemented a systematic training plan.

Over the past decade, this

initiative has grown into a well-established and impactful program. The results speak for themselves:

- 41 training programs conducted
- 200+ hours of structured learning
- 800+ employees benefited across various disciplines

One of the key highlights of this initiative has been its cost-effectiveness and sustainability. By leveraging in-house subject matter experts, the training sessions were conducted without any additional financial expenditure, making this a self-sustaining model of professional development.

The initiative not only provided employees with enhanced technical knowledge and problem-

solving skills but also contributed to greater efficiency and improved work performance across departments.

As we celebrate a decade of success, we take pride in this transformative initiative that has strengthened our workforce and contributed significantly to our organizational growth. Moving forward, our commitment remains steadfast in continuing this training framework, exploring new areas of learning, and further enhancing employee skill sets.

With ten years of impactful training behind us, we look ahead to expanding our learning programs and continuing to empower our employees with knowledge, skills, and confidence to excel in their roles.

TRAINING ON LOW CYCLE FATIGUE TESTING OF METALLIC MATERIALS AT DMRL

Defence Metallurgical Research Laboratory (DMRL), Hyderabad, conducted a training program on 'Low Cycle Fatigue (LCF) Testing of Metallic Materials' on 5 March 2025, aimed at raising awareness about the significance of fatigue under cyclic loading, particularly in the context of LCF testing.

The program commenced with a welcome address by Shri N Chittibabu, Sc 'G' & Head, Mechanical Behavior Group, followed by a course overview delivered by Shri Shahnawaz Ahmad, Sc 'F', Joint Course





Coordinator. During the session, Shri A Sridhar, Sc 'F', Joint Course Coordinator, delivered a comprehensive presentation covering various critical aspects of fatigue. Following the presentations, participants engaged in practical training through a visit to the Advanced Fatigue Testing Lab, where they gained hands-on experience in LCF

testing. A total of 42 participants attended the session, enhancing their technical expertise and understanding of LCF testing procedures for metallic materials.

The training program is part of DMRL's ongoing in-house training initiative, launched in response to guidelines from DHRD, DRDO HQr, and DOPT, Min. of Personnel. This initiative, focused

on enhancing the knowledge and skills of Group B and Group C staff, has conducted 41 programs, benefiting over 800 employees with more than 200 hours of structured learning over the past decade. For a detailed overview of this initiative, please refer to the article 'A Decade of Continuous Learning: In-house Training Initiative at DMRL' in this issue.

SKILL DEVELOPMENT PROGRAM ON HEXAGON DIGIMAT AND ADAMS TOOL AT DTTC, LUCKNOW

A two-day workshop under the skill development program on 'Hexagon Digimat and Adams Tool' was organized by the Defence Technology & Test Centre (DTTC), Lucknow, during 18-19 February 2025. The program was aimed at raising awareness about the simulation tool and providing basic concepts with practical sessions to industry professionals

and students. The event was inaugurated by Dr Mayank Dwivedi, OS & Director, DMSRDE, the Chief Guest of the workshop. He emphasized the efforts being taken by DRDO to develop the skilled workforce required at various defence and aerospace industries. Dr Ashish Dubey, Sc 'F' & PD DTTC, addressed the participants and brought out the

role of DTTC for strengthening MSMEs, startups, and academia's young aspirants.

Shri Amit Kumar, Sc 'F', DTTC, discussed the 'Importance of Skill Development for the Aerospace & Defence Sector' and stressed the significance of 'Hexagon Digimat & Adams' simulation tools in industries along with the available opportunities.





COURSE ON MATLAB AND SIMULINK AT IRDE

Instruments Research & Development Establishment (IRDE), Dehradun, conducted an intensive five-day training course on 'MATLAB and Simulink' during 3-7 March 2025. The course aimed at enhancing technical proficiency and innovation among employees of the IRDE. The course was designed to be highly interactive, with live demonstrations, research & development problem-solving sessions, and guided projects. An expert trainer from Cranes Varsity, Bangalore, provided personalized guidance and ensured participants gained practical exposure to using MATLAB and Simulink in their respective fields.

The training covered fundamental and advanced



concepts of MATLAB and Simulink, MATLAB programming and scripting, data analysis, visualization, and real-time applications, case studies, and

industry-relevant projects. During the valedictory session, Shri Punit Vashisth, Sc 'G' & Additional Director, IRDE, distributed certificates to the participants.

DRDO ADMIN CONCLAVE

The DRDO Admin Conclave on 'Nurturing New Joinings for Future Challenges' was jointly organized by the Directorate of Personnel (DoP), DRDO HQrs, and the High Energy Materials Research Laboratory (HEMRL), Pune, at HEMRL, Pune. The conclave was inaugurated by Dr Sameer V Kamat, Secretary DD R&D & Chairman DRDO, through VC, who emphasized the need for admins to be more proactive, being the administrative backbones for achieving the organizational goals. The inaugural session of the conclave was graced by Prof. (Dr) Prateek Kishore, DS & DG (ACE), Dr Manu Korulla, OS & DG (R&M); and Smt U Jeya Santhi, OS & DG (HR).

More than 150 admin heads



and senior officers handling admin matters participated in the conclave, which had sessions on issues related to new joinings. Director Admins of cluster DGs also gave presentations on the issues, initiatives, and suggestions related to their cluster. The

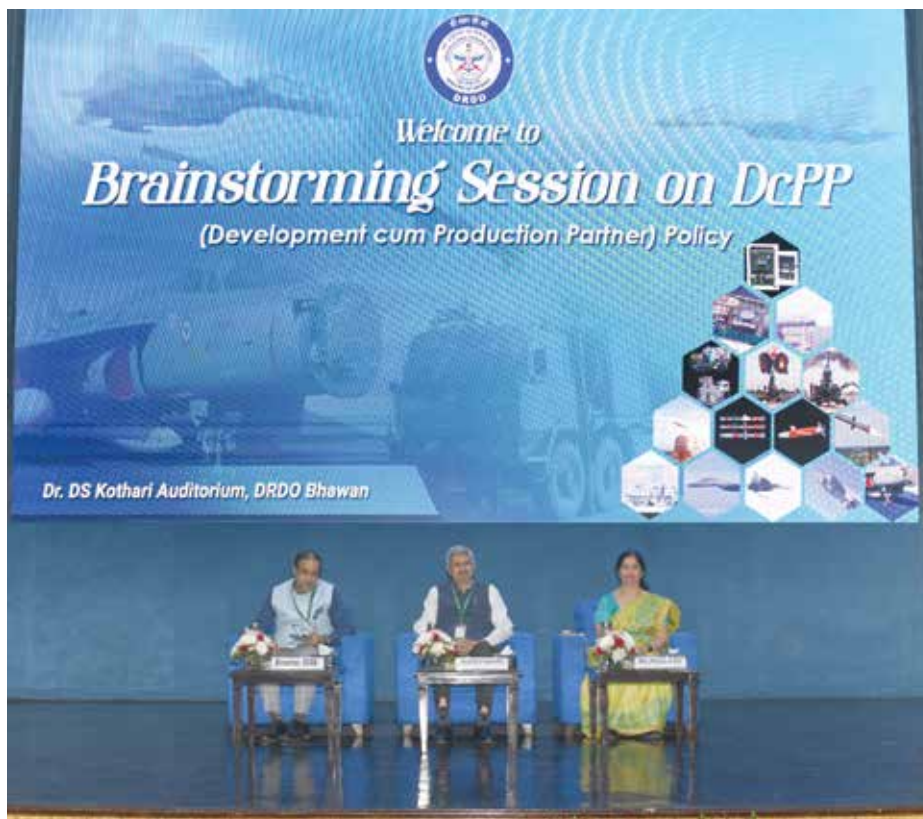
conclave was also addressed by speakers from DoP, Shri Shantam Shukla, strategist, and Shri Sharad Kumar Srivastava, joint secretary, UPSC. The valedictory address of the Conclave was made by the by Vice Chancellor of DIAT, Pune, and the Director, HEMRL.



BRAINSTORMING SESSION ON DEVELOPMENT CUM PRODUCTION PARTNERS (DCPP) POLICY

The Directorate of Interaction with Services for Business (DISB) conducted a one-day brainstorming session on Development cum Production Partners (DcPP) policy on 24 March 2025 at DRDO Bhawan with the objective of deliberating on the experiences of the DRDO laboratories and the major DcPPs, sharing best practices, and evolving adaptability as per today's scenario. The session was inaugurated by Secretary DDR&D & Chairman DRDO. More than 100 delegates from DRDO, industry, the armed forces, SIDM, and MoD participated in the brainstorming session.

The panel discussion was a huge success, as many queries came up from the delegates, bringing out plausible ways forward for the future. The aspects of abnormally low bids for the development phase, infrastructure, and trained



manpower with the DcPP, supply chain management, and handling of design iterations were discussed in detail.

HANDS ON TRAINING ON USAGE OF IGIST

Hands-on training on the usage of Indigenous GIS for Tri-Services (IGIST) involving its operations through server, rich, and thin clients was held at Defence Communication Network (DCN), New Delhi, during 17-21 March 2025. The training was imparted to the officers from various formations of the Indian Army. The hands-on training was imparted through the systems connected in the DCN.

The event was inaugurated by AVM DS Joshi ACIDS (ICT) of





HQRD IDS. In his inaugural talk, he emphasized the importance of IGIST and its operations potential in Tri-Services. Dr Narayan Panigrahi, OS & Project Director of IGIST, emphasized the importance

of the indigenous nature of the IGIST and its technical superiority for collaborative operation planning in heterogeneous operations. He also highlighted the capacity of the system, where

more than 1500 simultaneous clients pan India can operate and leverage the digital map services encompassing digital topographic maps, bathymetric charts, and air navigation charts.

COURSE ON STEMS – 23 AT ITM

The mandatory training program 'Specialized Training on Essential Management Skills' (STEMS-23) for newly promoted Scientist 'G' was organized by the Institute of Technology Management (ITM), Mussoorie, during 17-28 February 2025 at Dehradun. The course was organized with the aim to orient the scientists towards leadership excellence, R&D management, strategic management, and

corporate functions of DRDO. A total of 121 participants attended the course.

A total of 26 topics were covered in 45 sessions. Important topics related to DPFM, DRDO-Industry-Academia Collaborations, the S&T landscape, handling requirements from services, challenges in the development of platforms, futuristic technologies, future warfare, leadership skills, etc. were discussed during the training

course by distinguished guest faculties.

Course participants were divided into 20 teams (syndicates) for deliberation and discussions on important topics related to DRDO and the defence sector. The course was inaugurated by Dr Ajay Kumar, Director, IRDE Dehradun, on 17 February 2025. Smt U Jeya Santhi, DG (HR), interacted with the course participants during the valedictory session.



COURSE ON ASMAFT-20 AT DIBT

Defence Institute of Biodefence Technologies (DIBT), Mysuru organised a 4 day course on 'Advance Supply Chain Management & Food Technology (ASMAFT-20)' during 3-6 March, 2025 at DIBT, Mysuru. 16 numbers

of senior Army ASC officers along with 3 faculties from ASC Centre & College, Bengaluru attended the course.

Besides lectures a hands on trainings were provided on state-of-the-art and novel technologies to

render comprehensive knowledge to the senior Army officers in food processing, frozen & chilled meat/chicken, quality control and management. A visit to Karnataka Milk Federation (KMF) Dairy, Mysore, CFTRI, Mysore and ITC



foods Pvt Ltd were arranged as a part of the course to understand the different technological aspects of milk processing, milling of grains and processing and production of RTE foods and potato chips, respectively.

The programme end with briefing about the programme by Course Director, Dr Rajendran C, Sc 'E' and vote of thanks by Dr Sajeew Kumar, Sc 'G', Head (FDAPT). Dr Kumar R, Centre Head, DIBT distributed the certificates to the course participants.



PXE ALONG WITH TOLIC CONDUCTED HINDI WORKSHOP

Proof and Experimental Establishment (PXE), Chandipur organized the 97th Hindi workshop along with TOLIC, Balasore, on 12 March 2025. The workshop was inaugurated by Shri Subodha Kumar Nayak, OS & Director, PXE. Dr HS Panda, Sc 'G' & Associate Director, Chief Speaker Prof. Dilip Kumar Ghosh, Principal, FM College, Balasore and Guest speaker Dr Sunil Kumar, Member Secretary, TOLIC, Balasore. In the

inaugural address, the Director, PXE mentioned the Rajbhasha activities at PXE and his gratitude towards TOLIC, Balasore, and appreciated their efforts regarding progressive usage of Rajbhasha. He discussed the changing form of Hindi in this digital era and expressed the importance of Rajbhasha. He mentioned that PXE always put efforts toward the progressive usage of Rajbhasha with enthusiasm.

Dr Panda, portrayed the role of TOLIC & the importance of Rajbhasha in central government offices. He told them that PXE is an active member of TOLIC, Balasore, and has been playing a crucial role in the implementation of Hindi in office activities and and also encouraged all the participants to use Rajbhasha more and more in their respective offices. Smt Anita Parida, AO & OIC, proposed the vote of thanks.



RELEASE OF HINDI HOUSE JOURNAL 'SUVIGYA' AT CAIR

The quarterly Official Language Implementation Committee meeting of Centre for Artificial Intelligence & Robotics (CAIR), Bengaluru, was organised on 27 March 2025. It was held under the chairmanship of Shri KR Prasanna Kumar, OS & Officiating Director, CAIR. In this meeting, the progress of official language implementation in the center was reviewed and discussed, and the CAIR House Journal 'Suvigya' Twentieth Edition and Fourth



Technical Edition were released. This magazine is a collection of technical articles, general articles,

poems, etc. contributed by the officers & staff of CAIR, and it also reflects the activities of the center.

HINDI KARYASHALA AT DMSRDE

A Hindi Karyashala on 'Bharatiya Gyan Parampara aur Hindi' was organised by Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, on 27 March 2025. The Karyashala was inaugurated by Dr Mayank Dwivedi, OS & Director, DMSRDE. Prof. Rakesh Kumar Shukla, Department of Hindi, VSSD

College, Kanpur, was the invited speaker. During his inaugural address, the Director appraised the Rajbhasha activities ongoing in the laboratory and urged all the officers to use Hindi in their work field. Dr Shukla elaborated on the meaning/definition of bhasha and its importance. He said that to make Hindi a globally accepted language, our S&T knowledge

should be made available in Hindi. He also spoke about Bharatiya Gyan Parampara, which is based on our ancient scriptures such as the Vedas, Puranas, Upanishads, etc. During the event, the technical edition of DMSRDE's annual Hindi magazine, Navchintan, was also released. Shri Harikesh Yadav, Admin Officer, delivered the vote of thanks.





APPOINTMENT

Director, DEAL



Shri MK Dhaka, Outstanding Scientist, is appointed as Director, Defence Electronics Applications

Laboratory (DEAL), Dehradun, with effect from 17 March 2025. Shri Dhaka joined DEAL in the October 1990 as Sc 'B' after completing Electronics Fellowship Course-5 at IAT, Pune. Thereafter, he has worked on several important DRDO projects in the field of communication. Some of the projects are Meteor Burst Communication, TCP traffic

accelerator for satellite medium, Network management system for secure Satcom network, Mobile satcom network for Low intensity conflicts, Integrated development of software defined radio for Navy, Development of S-band Hub and ground satcom terminals, Combat Identification of Friend or Foe (CIFF), Development of Indian Automatic Identification System for Integrated Coastal Surveillance System (ICSS), Realization of satellite terminals for load testing, Realization of dedicated satellite Hub for future satellite(s) and Advanced Satcom Technologies & Systems.

He was deputed to Indian Antarctic Station, Maitri from

November 1995 to April 1996 as Radio Officer. During this period DEAL, DRDO took charge of providing communication to multi-organisation Indian Antarctic expedition. As Associate Director of Satcom and SDR verticals in DEAL, he has successfully conceptualized and delivered several products to user community. For his significant contributions, he has been awarded DRDO Agni Award for Excellence in Self-reliance in years 2005, 2010 & 2018; DRDO Performance excellence award 2018 for SDR-NC; DRDO Scientist of the Year 2019; and Laboratory Group Technology awards for years 2014, 2016 & 2017.

INMAS Scientist Awarded with Leadership Program in UK by DST, India

The Department of Science and Technology (DST), in collaboration with the British Council, launched the 'Women in Space Leadership Programme (WiSLP)' as part of the UK-India Education and Research Initiative (UKIERI). The prestigious program aims to empower women researchers in the field of space and allied sciences. 250 women researchers from Indian R&D institutes and academia participated in Phase 1 training in India; out of them, 15 scientists were selected, with the approval of the Secretary, DST, to attend the advanced Phase 2 training in the United Kingdom. Dr Shuchi Bhagi, Sc 'D' Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi, successfully completed Phase 1 training at IIT, Hyderabad, held in February 2025, and was the sole DRDO representative selected for Phase 2 training. She was a part of the Indian contingent that underwent advanced training at Coventry University, UK., during 17-19 March 2025. The advanced program aimed to enhance the research skills, leadership capabilities, and international collaborations.



Best Paper Award

Dr Sushanth Kumar Chotray, Sc 'F' from the Microwave Tube Research & Development Centre (MTRDC), Bengaluru, was awarded the best paper award at the 4th International Conference on Range Technology (ICORT-2025) organised by Integrated Test Range (ITR), Chandipur, during 6-8 March, 2025, for his paper 'Harmonic Generation in Modified Relativistic Magnetron'.



Commendation from Chief of the Air Staff (CAS)

On the occasion of Republic Day 2025, Mr Ashutosh Saxena, Sc 'D' from the O/o Scientific Advisor to Chief of the Air Staff (CAS) has received the coveted commendation from Chief of the Air Staff for his exceptional performance and consistently delivering exceptional results for the Indian Air Force.

Higher Qualification Acquired



Ms Sakshi Verma., Sc 'B', Naval Physical and Oceanographic Laboratory (NPOL), Kochi, has been awarded a PhD from Delhi Technological University for the thesis titled 'Studies on Graphene Oxide-based Nanocomposites and their Applications'.

DRDO WALKATHON

The DRDO Sports Board (DSB) at DRDO Hqrs, New Delhi, is entrusted with the responsibility of organising various sports activities at different laboratories of DRDO. The DRDO Sports Board is aided by 4 zonal councils, namely the South Zone Sports Council (SZSC), the North Zone Sports Council (NZSC), the Central Zone Sports Council (CZSC), and the West Zone Sports Council (SZSC).

Various sports activities are organised in different laboratories of DRDO at their respective places throughout the year for the promotion of sports. Under the aegis of the DSB, a 4 km walkathon for DRDO Hqrs employees was organised at Nehru Park, Chanakyapuri, Delhi, to create awareness about physical & mental health, well-being, and the implementation of sportsmanship

spirit at the workplace.

The event was attended by Secretary DD R&D and Chairman DRDO, Director Generals, Directors, Senior Scientists, and employees of DRDO Hqrs. More than 200 participants joined the Walkathon.

Dr Sunita Godara, former Asian Marathon Champion, gave health & fitness tips and instructed all participants during the session.



SOCIAL ACTIVITIES AT NPOL

Eye Check-up Camp

Naval Physical and Oceanographic Laboratory (NPOL), Kochi, organised an eye check-up camp in cooperation with Little Flower Hospital and Research Center, Angamaly, during 11-12 March 2025 at NPOL and on 27 March 2025 at UARF Kulamavu. Around 350 permanent employees and sanitary workers utilised this facility. The free checkup includes consultation by an ophthalmologist, vision checking, refraction & glass prescription, and eye pressure checking.

Dr Rema Devi M, Sc 'G', Chairperson, Works Committee, gave the introduction of the camp. Smt Miny G, Sc 'G' & Director (S&T) inaugurated the function. Shri K Mohanan, Sc 'H', Director (Management), made the felicitation speech.

The doctors, leading a medical team from the Little Flower Hospital and Research Center, Angamaly, briefed the importance of detecting and taking timely medical treatment for glaucoma as part of the World Glaucoma Week observance.

Shri Tinto Chacko, Tech 'B', Secretary, Works Committee, made the vote of thanks. The event was coordinated by the NPOL Works Committee.

Health Check-up Camp For Women Employees

As part of the International Women's Day Celebration, Naval Physical and Oceanographic



Laboratory (NPOL), Kochi organised a Health Check-up camp for lady employees in co-operation with Thrikkakara Municipal Co-operative Hospital on 26 March 2025.

Dr Rema Devi M, Sc 'G' & Chairperson, Works Committee, NPOL welcomed the gathering and greeted wishes to every woman gathered there. Shri Vasudevan,

Sc 'H' & Director (Systems) inaugurated the camp and emphasised the importance of health of women in every walk of life considering the multitasking roles performed by them.

Shri Tinto Chacko, Tech 'B', Secretary, Works Committee proposed the vote of thanks. The event was co-ordinated by the Works Committee, NPOL.



VISITORS TO DRDO LABORATORIES

ARDE, Pune

□ Lt Gen Navneet Singh Sarna, AVSM, SM, VSM, Commandant, School of Artillery, visited Armament Research and Development Establishment (ARDE), Pune, on 7 March 2025, along with two accompanying officers of the rank of colonel. Shri A Raju, OS & Director, ARDE, briefed him about various ARDE ongoing projects. Detailed presentations were made on ATAGS, the Pinaka System, 155 mm Bourrelet Ammunition, and the 155 mm Ramjet Projectile by respective groups. A static display of ATAGs and Pinaka was also conducted along with a visit to the EM Rail Gun Facility.

□ Thirty-seven Indian Navy officers undergoing the NW&MTC course at MILIT, Pune, along with one directing staff member, visited ARDE on 12 March 2025. The visitors were briefed about ARDE, and a presentation-cum-demonstration on infantry weapons was given. The visit also included an introduction to the EM Rail Gun and a visit to the Static Exposition Hall.

□ Six service officers of the Indian Air Force undergoing Armament & Disposal Course 19 (AADC) at 14 Tetra School, Amla Depot, MP, along with one directing staff member of the rank of Wg Cdr, visited ARDE on 13 March 2025. The visitors were briefed about ARDE, and a visit to the Static Exposition Hall was arranged. A visit to the Air Delivered Munition (ADM) Group and APP & CSS Group was also arranged.





□ 24 officers (including four foreign nationals) of the rank of lieutenant colonel, Major and Captain undergoing Advance Materials Management (AMM) Course Sr. No. 54 at the College of Materials Management (CMM), Jabalpur, along with one directing staff member, visited ARDE on 26 March 2025. The visitors were briefed about ARDE, and a demonstration of small arms was given. An interactive session on defect investigation of the barrel was conducted.

□ One hundred eighteen student officers of the rank of Lieutenant undergoing Young Officers Course Sr. No. 3002 at the School of Artillery, Devlali, Nashik, along with two directing staff members, visited ARDE on 27 March 2025. The visitors were briefed about ARDE, and a presentation on 155mm Bourrelet Ammunition was given. A demonstration of small arms was arranged for the visitors. A static display and demonstration of ATAGS & Pinaka were also arranged at the end.



DEAL, Dehradun

Ms Deepa Bajpai, GM BEL, Panchkula along with BEL Panchkula team visited Defence Electronics Applications Laboratory (DEAL), Dehradun, on 4 April 2025. She was greeted by Shri Manoj Kumar Dhaka, OS & Director, DEAL along with DEAL team. The visit marked a significant opportunity for direct engagement, in-depth review and valuable feedback on ongoing projects & activities at BEL including VLF receiver, Manpack SDR, CTCS & NATSAT. GM BEL informed that BEL has received large amounts of production orders from users



and a number of budgetary proposals are in considerations for DEAL developed products. She

appreciated the support of DEAL towards Transfer of Technology of CTCS.

DIHAR, Leh

Lt. Gen. Hitesh Bhalla, UYSM, SC**, SM, VSM, GOC 14 Corps, visited Defence Institute of High Altitude Research (DIHAR), Leh, on 5 April 2025. Dr OP Chaurasia, Centre Head, DIHAR, briefed him about the various R&D activities being undertaken by DIHAR, after which he visited the technology demonstration cum experimental fields of DIHAR and took special interest in the solar-based space heating technology, greenhouse technology, and double-humped camels. He appreciated DIHAR for the pioneering yeoman service in high-altitude research to empower the armed forces and the people of Ladakh.



DMRL, Hyderabad

On March 24, 2025, the Defence Metallurgical Research Laboratory (DMRL), Hyderabad, had the privilege of hosting an instructional-cum-study tour: Course Ser OAAE-60 for 25 officers, accompanied by one directing staff member from EME School, Vadodara. The visit aimed to provide a comprehensive overview of DMRL's research capabilities and the pivotal role it plays in advancing defence technologies.

Dr Ashish Pathak, Sc 'E', delivered an insightful briefing on the laboratory's mandate, current research initiatives, established technologies, and key advancements. The briefing also highlighted the importance of collaboration between research institutions and the Indian Armed Forces.

During the tour, the officers had the opportunity to explore various



technical divisions, where they were exposed to the laboratory's cutting-edge infrastructure and ongoing research projects. Engaging in interactive discussions with DMRL's scientists, the officers demonstrated a keen interest in the laboratory's innovative research, products, and technologies. They expressed their appreciation for DMRL's contributions to the development of advanced materials for defense applications.

This industrial tour offered a valuable opportunity for the officers to connect theoretical knowledge with real-world

applications, providing unique insights into the latest advancements in metallurgical research and its implications for the defence sector.

DMSRDE, Kanpur

Shri RV Hara Prasad, DS & DG (NS&M), visited Defence Materials and Stores Research & Development Establishment (DMSRDE), Kanpur, on 17 February 2025. He was accompanied by Dr Seshagiri Duvvuri, OS & Director NPOL; Shri VS Shenoi, OS & Director, DLJ; and Shri SK Panigrahi, Sc 'G' & Director (PM) O/o DG (NS&M).



Dr Mayank Dwivedi, OS & Director, DMSRDE, welcomed the dignitaries. Director, DMSRDE gave a presentation highlighting the laboratory's vision, mission, charter, and technology focus areas. DG (NS&M) conducted an EB meeting for 6 projects (4 ongoing and 2 closed) of DMSRDE and a technical review of 2 ongoing projects whose PDC is in the current FY. He met with JCM and DMSRDE Works Committee members. He also visited DTTC, Lucknow, and reviewed its activities at both the Amausi and Nadarganj campuses.

NPOL, Kochi

Dr Samir V Kamat, Secretary, DD R&D & Chairman, DRDO visited Naval Physical and Oceanographic Laboratory (NPOL), Kochi during 10-11 April 2025. Secretary, DD R&D and Chairman, DRDO visited the site identified for establishing the proposed DRDO test facility at Poovar, near Vizhinjam Port, Thiruvananthapuram on 10 April 2025.

He was accompanied by Dr K Rajalakshmi Menon, DS & DG (Aero), Shri R V Hara Prasad, DS & DG (NS&M), Dr Jaiteerth R Joshi, OS & DG BrahMos, Dr D Seshagiri, OS & Director, NPOL, Kochi and Dr Ramana Murthy SV, OS & Director, GTRE, Bengaluru. The visited team also included ATTROSC project team, Dr Biswajeet Choubey, Director, Civil Works & Estates.

Senior Officials from NPOL



and CCE (R&D) gave presentation and briefed about the details of land identified for establishing the

facility, the test facilities planned onshore & offshore and on the way ahead.

Please mail your feedback and suggestions at:
director.desidoc@gov.in; drdonl.desidoc@gov.in;
Contact at: 011-23902403; 23902472; Fax: 011-23819151