

**GOVERNMENT OF INDIA
DEFENCE
LOK SABHA**

UNSTARRED QUESTION NO:1233
ANSWERED ON:08.08.2011
DRDO PRODUCTS
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Will the Minister of DEFENCE be pleased to state:

- (a) the total number of Defence Research and Development Organisation (DRDO) laboratories/units, their locations and the areas of their research activities;
- (b) the names of various products including food products developed by DRDO for defence and civilian use during the last three years;
- (c) the details of food production units of DRDO existing in various parts of the country as on date;
- (d) the names of other products likely to be developed by DRDO for defence personnel in the near future; and
- (e) the details of funds allocated for such research work in DRDO?

Answer

MINISTER OF DEFENCE (SHRI A.K. ANTONY)

- (a) There are 50 laboratories/institutes functioning under the Defence Research and Development Organisation (DRDO). The locations and the areas of research activities of these laboratories are given in Annexure 'A'.
- (b) DRDO has developed a number of products which include missiles; unmanned aerial vehicles; electronic warfare systems; electro-optical systems; radars; sonars; combat vehicles; remotely operated vehicles; bridges; sensors; NBC decontamination suites; parachutes; propellants and explosives; detonators; grenade launcher; rifles; composite materials; communication systems; products for low intensity conflicts; NBC water purification system; swine flue detection kit; biodigesters, etc. DRDO has also developed various food products i.e., ready-to-eat foods; energy foods; appetizers; concentrated juices; coconut meal based food, etc. for Armed Forces during the last three years. Some of these food products are also available for civilian use.
- (c) DRDO is not involved in food production activities. Transfer of Technology is done to industries.
- (d) DRDO would take up the projects on the basis of requirements of the Services. At present, DRDO is concentrating on development of strategic, complex and security sensitive systems.
- (e) Out of a total budget allocation to DRDO, ` 6368.02 Crore has been allocated for research work during 2011-12.

ANNEXURE 'A' REFERRED IN THE REPLY GIVEN IN PART (a) OF LOK SABHA UNSTARRED QUESTION NO. 1233 FOR ANSWER ON 8.8.2011

DRDO Laboratories/Institutes

No State/UT Names of Laboratories/Institutes & their Locations Areas of research work

1. Andhra Pradesh Research Centre Imarat (RCI), Hyderabad Missiles
2. Andhra Pradesh Defence Research & Development Laboratory (DRDL), Hyderabad Missile based Weapons
3. Andhra Pradesh Advanced Systems Laboratory (ASL), Hyderabad Polymers & Composites
4. Andhra Pradesh Advanced Numerical Research & Analysis Group, Hyderabad Computer Systems
5. Andhra Pradesh Defence Electronics Research Laboratory (DLRL), Hyderabad Electronic Warfare
6. Andhra Pradesh Defence Metallurgical Research Laboratory (DMRL), Hyderabad Materials and Composites

- 7 Andhra Pradesh Naval Science & Technological Laboratory (NSTL), Visakhapatnam Underwater Weapons
8. Assam Defence Research Laboratory (DRL), Tezpur Health & hygiene
9. Chandigarh Snow and Avalanche Study Establishment (SASE), Chandigarh Snow Science
10. Chandigarh Terminal Ballistics Research Laboratory (TBRL), Chandigarh Ballistics
11. Delhi Centre for Fire, Explosives and Environment Safety, Delhi Fire Detection, Explosives & Environment Safety
12. Delhi Laser Science & Technology Centre (LASTEC), Delhi Opto-electronics, Lasers
13. Delhi Institute of Nuclear Medicines & Allied Sciences INMAS), Delhi Nuclear Medicines
- 14 Delhi Institute for Systems Studies & Analyses (ISSA), Delhi Systems Modelling
- 15 Delhi Defence Terrain Research Laboratory (DTRL), Delhi Terrain research
- 16 Delhi Defence Institute of Physiology & Allied Sciences, Delhi Physiology
- 17 Delhi Defence Institute of Psychological Research (DIPR), Delhi Psychological research
- 18 Delhi Defence Scientific Information & Documentation Centre, Delhi Information Science
- 19 Delhi Solid State Physics Laboratory (SSPL), Delhi Solid-State/ Semiconductor Materials
- 20 Delhi Scientific Analysis Group (SAG), Delhi Cryptology
- 21 Delhi Recruitment and Assessment Centre (RAC), Delhi Human Resource Development
- 22 Delhi Centre for Personnel Talent Management (CEPTAM), Delhi Talent Management
- 23 J & K Defence Institute of High Altitude Research (DIHAR), Leh High Altitude Agro-animal research
- 24 Karnataka Centre for Artificial Intelligence & Robotics, Bangalore Robotics
- 25 Karnataka Aeronautical Development Establishment (ADE), Bangalore Aerial Vehicles
- 26 Karnataka Centre for Air Borne System (CABS), Bangalore Air-borne Early Warning
- 27 Karnataka Centre for Military Air-worthiness & Certification Air-worthiness functions (CEMILAC), Bangalore
- 28 Karnataka Defence Avionics Research Establishment (DARE), Bangalore Air-borne Electronic Warfare
- 29 Karnataka Gas Turbine Research Establishment (GTRE), Bangalore Gas Turbine Engines
- 30 Karnataka Electronics & Radar Development Establishment, Bangalore Radars
- 31 Karnataka Microwave Tube Research & Development Centre, Bangalore Microwave Tubes
- 32 Karnataka Defence Bio-engineering & Electro-medical Life Support Systems Laboratory (DEBEL), Bangalore
- 33 Karnataka Defence Food Research Laboratory (DFRL), Mysore Food Sciences
- 34 Kerala Naval Physical & Oceanographic Laboratory (NPOL), Kochi Naval Technology
- 35 Madhya Pradesh Defence Research & Development Establishment (DRDE), Gwalior Chemical & Biological Warfare
- 36 Maharashtra Armaments Research & Development Establishment (ARDE), Pune Armaments
- 37 Maharashtra Research & Development Establishment (Engrs) (R&DE[E]), Pune Weapon Systems/ Platforms
- 38 Maharashtra High Energy Materials Research ILaboratory (HEMRL), Pune Explosives
- 39 Maharashtra Vehicles Research & Development Establishment, Ahmednagar Wheeled Vehicles
- 40 Maharashtra Naval Materials Research Laboratory (NMRL), Ambernath Corrosion Preventive Technology
- 41 Orissa Integrated Test Range (ITR), Balasore Evaluating the performance of Rockets & Missiles
- 42 Orissa Proof and Experimental Establishment (PXE), Balasore Testing of Weapons
- 43 Rajasthan Defence Laboratory (DL), Jodhpur Camouflaging and Isotopes

- 44 Tamil Nadu Combat Vehicles Research & Development Establishment, Chennai Combat Vehicles
- 45 Uttar Pradesh Aerial Delivery Research & Development Establishment, Agra Parachute & other allied Delivery Systems
- 46 Uttar Pradesh Defence Materials & Stores Research & Development Textiles, Polymers & Composites Establishment (DMSRDE), Kanpur
- 47 Uttarakhand Defence Electronics Applications Laboratory (DEAL), Dehradun Electronics
- 48 Uttarakhand Instruments Research & Development Establishment, Dehradun Opto-electronics
- 49 Uttarakhand Institute of Technology Management (ITM), Mussoorie Training of Persons
- 50 Uttarakhand Defence Institute of Bio-Energy Research (DIBER), Haldwani Bio-energy