Quality of products and research made by DRDO

- 844. SHRI SANJAY RAUT: Will the Minister of DEFENCE be pleased to state:
- (a) whether it is a fact that products made by Defence Research and Development Organisation (DRDO) were not up to expectations and several key projects undertaken by it were either behind schedule or found to be inadequate when compared with equipments sourced from foreign defence contractors;
 - (b) if so, what is Government's response thereto;
- (c) the details of research and products made by DRDO during the last three years; and
- (d) the details of steps taken or proposed to be taken by Government for developing indigenous products which matched international standards?

THE MINISTER OF DEFENCE (SHRI MANOHAR PARRIKAR): (a) and (b) Defence Research and Development Organisation (DRDO) is primarily involved in design and development of strategic, complex and security sensitive systems in the fields of missiles, unmanned aerial vehicles, radars, electronic warfare systems, sonars, combat vehicles, combat aircraft, sensors, etc. for the Armed Forces as per their specific Qualitative Requirements. Systems developed are trial evaluated by the Users and productionised mostly through Ordnance Factory Board and Defence Public Sector Undertakings. Specifications of the systems are drawn from the technical, functional and operational requirements given by the Users. Extensive Quality Assurance / Quality Control practices are followed right from the design stage under arrangements of Director General Quality Assurance to bring out reliable products. Systems developed are evaluated thoroughly to meet all the technical and quality requirements and demonstrated in the User Trials. Transfer of Technology is given to production agencies with relevant documentation for smooth productionisation. There are no quality gaps in the systems developed by DRDO and evaluated by the Services.

Some DRDO projects are lagging behind schedule. Efforts have been made to complete these projects at the earliest to ensure that the Services get the state-of-the-art technologies, once the products are accepted by them.

(c) Details of major research / products made by DRDO during the last three years (2012-14) is given in the Statement (*See* below) alphabetically.

(d) DRDO develops products systems to meet the Qualitative Requirements given by the Services, which are extensively trial evaluated on set parameters before acceptance by the Services.

Statement

List of major research/products made by DRDO during the last three years (2012-14)

- Aerostat Platform
- Airborne Surveillance System
- Anti Terrorist Vehicle
- Arctic Gloves with Active Heating Element
- Arjun Catapult Gun
- Armoured Ambhibious Dozer
- Arrester Barrier System
- Artificial Intelligence
- Assorted Ammunition
- Bio-digesters
- · Bridging Systems
- Carbon Nano Tubes
- Carrier Command Post Tracked Vehicle
- Commander's TI for T-72 (Mk-II)
- Communication Security Solutions
- Compo-pack Foods
- Cryptanalytical Tools
- Cyber Security Systems
- Data Link Technologies
- Decision Support System
- Digital Signal Processing
- · Divya Drishti

- Electronic Support Measures Systems
- Electronic Warfare Systems
- Electro-Optical Fire Control System
- Field Shelters for NBC

Written Answers to

- Fire Detection & Suppression System
- Fire Retardant Paints
- First Aid Kits Type A&B
- Flight Rotary Engine
- Food Supplements
- Grenades
- Handheld and Airborne Radios
- Heavy Dropping System
- Helmet Mounted Thermal Imaging Camera
- Herbal anti Leucoderma and anti-Eczema Herbal Medicines
- High Temperature Titanium Alloy
- Hydro Gas Suspension System
- Hyperbaric Chamber
- Infantry Floating Foot Bridge
- Information Security Gateway
- Integrated Multifunction Sight
- Landing gears for UAV
- Landslide Information System
- Laser Dazzler
- Laser Warning System
- Life Support Systems
- Light Weight Portable Laser Target Designator
- Low-alloy Steel

- Main Battle Tank (MBT) Arjun (Mk-II)
- Metal Matrix Composites
- Mines

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- Missiles
- Mountain Foot Bridge
- NBC Water Purification System
- Network Management System
- Night Vision Gap Measuring Device
- Onboard Oxygen Generating System
- Operational Avalanche Forecasting
- Parachute Systems
- Portable Telemedicine System
- Protective Clothing
- Radar Warning System
- Radars
- Radiation Medicine
- Recovery and Flotation Systems
- Remotely Operated Vehicle
- Risk & Hazard Assessment Software
- Roentgenometer
- Satcom Terminals
- Sensor and Detectors
- Shock Absorbing Materials
- Silicon Carbide related Technologies
- Simulator
- Snow Cover Information System
- Propellants
- Sonars

Synthetic Life Jacket

Written Answers to

- Target Acquisition System
- Three Dimensional Tactical Control Radar
- Torpedoes
- **Underwater Paints**
- Unmanned Aerial Vehicle
- Unmanned Ground Vehicle
- Vacuum Investment Casting Technology
- War Game Software
- Water Testing Kit

Intensifying patrolling of coastal areas

- 845. SHRI AMBETH RAJAN: Will the Minister of DEFENCE be pleased to state:
- (a) whether Government has intensified patrolling in coastal areas after spotting unidentified boat recently so that another type of 26/11 incident can be averted; and
 - (b) if so, the details thereof?

THE MINISTER OF DEFENCE (SHRI MANOHAR PARRIKAR): (a) and (b) Post interception of the suspect boat near IMBL off Gujarat coast on 1.1.2015, Indian Coast Guard (ICG) has maintained strong presence in the area, through regular and continuous surface patrol and aerial surveillance. Further, a three tier coastal security ring of Marine Police, Indian Coast Guard and Indian Navy is already in place.

Posting of defence officers in canteens

- †846. DR. SANJAY SINH : Will the Minister of DEFENCE be pleased to state:
- the number of defence officers posted to operate the unit run canteens (URCs) in various parts of the country during the last three years, State-wise and canteen-wise details thereof;

[†]Original notice of the question was received in Hindi.