

“DRDO: Achievements and Way Ahead”

Introduction

India being a peninsular country and popularly called as the sub-continent of Asia is greatly protected by the national barriers of the Great Himalayas on the North, Indian ocean and Arabian Sea in the peninsular India. But we have never been safe from invasions for centuries. Though the geographical status of country is safe from one aspect we should possess a strong Defence forces in all three Army, Navy and Airforce. DRDO the Defence Research & Development Organisation with the vision to design, develop and lead to production state-of-the-art sensors, weapon systems, platforms and allied equipment for our Defence Services shoulder a very great responsibility of helping and guiding our defence personnel to protect our country.

Vision & Mission

Vision

(Source : <https://www.drdo.gov.in>)

Make India prosperous by establishing world class science and technology base and provide our Defence Services decisive edge by equipping them with internationally competitive systems and solutions.

The vision of DRDO along with Make in India aim will make our country self-reliant and aim for the highest standards in producing ammunition.

Mission

- *Design, develop and lead to production state-of-the-art sensors, weapon systems, platforms and allied equipment for our Defence Services.*
- *Provide technological solutions to the Services to optimise combat effectiveness and to promote well-being of the troops.*

- *Develop infrastructure and committed quality manpower and build strong indigenous technology base.*

The steps towards achieving the vision is in the hands of the person who works to it. The mission of developing machine for the man to operate to safeguard the country first and himself next.

Achievements of DRDO

(Source : <https://blog.mygov.in/ebook/drdo60-60-years-of-achievements>)

DRDO is tasked with designing, developing and producing cutting edge technologies that make our armed forces indomitable not only in the battlefield but also in the minds of our adversaries. With the global paradigm shifting rapidly, the need to strengthen our defence sector assumes greater importance.

DRDO has been developing platforms that have considerably enhanced our fighting capabilities. In this pursuit of excellence, the DRDO has helped India achieved few notable achievements, viz.

- *One of the 4 countries to have Multi level Strategic Capability*
- *One of the 4 countries to have Airborne Warning & Control System (AEW&C)*
- *One of the 5 countries to have our own Fourth plus Generation fighter aircraft*
- *One of the 5 countries to have its own Ballistic Missile Defence Programme*
- *One of the 7 countries to have developed its own Main Battle Tank*
- *One of the select few countries to have its own Electronic Warfare and Multi Range Radar Program*

The achievements quoted above are mere milestones for the victory to be achieved in the near future, especially for a country like ours ranking second in the world population.

MAKE IN INDIA

'Make in India' is the watchword of our development in this century. A day will come when we can say with pride that we have indigenously developed a missile or control system

according to our own requirement. The man power of our country is the main strength and if put into proper use with effective use of technology we can achieve wonders, no doubt. The difficult terrain in the LOC making the life of soldiers unbearable is an important concern to be looked into. India has more than 50% of its population below the age of 25 and more than 65% below the age of 35. The data gives us a feel that the entire country is young and ready to face challenge. Both the physical challenge and technology challenge. It is not the quantity that matters but the quality of the young India.

FACTORS OF RESEARCH FOR FUTURE

The physical and mental fitness of the troops is very important factor for effective use of technology, so focus can be shifted towards this aspect.

The ergonomics in usage of machines also contributes to the effective usage of the technology.

The various food substitute for the troops on high altitude can also be focused.

Decrease in the import of ammunition and focus on export of our products.

Rather than focusing on new products, re-engineering the existing products for cost-cutting, ergonomic design, reuse of consumables, ecofriendly alternative can also be thought of.

Our country is faces some or the other natural calamities every year and the local government seek the help of NDRF (National Disaster Response Force). DRDO can also focus on working for developing equipment for NDRF activities.

Infiltration across the borders is a common problem these days and measures and means to stop this menace to be worked out.

Loss of life of defense personal in combatting the inner violence like naxal, ulfa, animal poaches due to the strange location of search operations can be curbed by effective use of wireless technology.

The growing need for helicopters has been met indigenously with increase in the production and we should not depend on imports.

CONCLUSION

Defense is the backbone of the country. Training personnel alone is not sufficient, training them in the use of weapons is more important. Sufficient practice off field will give them great confidence and accuracy on field. Use of Robotic machines in difficult terrain in the future will make efficient use of technology. Wide use of suicidal drones for surveillance and monitoring in LOC will give us lot of data for self-preparedness. Movement sensors and alarm system can provide sufficient control on infiltration. Let us dream that our country to be looked as a market for weapon buying not selling.