

The Upgraded Military Weapons and Military Equipments

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Abstract

The world is emerging into a new atomic era. Almost all countries in our world are using a high tech advanced technologies in their military and defense in order to protect and safe guard their nations. Now almost all are countries are enough powerful by using advanced military technologies. The military technology includes the total collection of equipments, weapons, vehicles, structures and communication. The main theme of this paper is to give an detailed account of the advanced military technology and all round development in all military divisions.

1. Introduction

1.1 Military

A military is an organization authorized by its greater society to use lethal force, usually including use of weapons, in defending its country by combating actual or perceived threats. Military technology is the collection of equipment, vehicles, structures and communication systems that are designed for the use in warfare. It also covers also all aspects of defence.

MILITARY TECHNOLOGY:

The aim of the paper is to provide the informations about the military technology. This includes:

- Weapons
- Vehicles
- Communications
- Structures and borders
- The most advanced weapon
- Other components

2. Advanced Military Weapons

2.1. WEAPONS:

Weapons falls under an engineering category which is given as Weapon engineering. The weapon engineering includes other engineering fields such as mechanical, electrical engineering and mechatronics. Weapon engineering is the design, development, testing, lifecycle management of military weapons and systems. The weapons engineering includes several methods which are only approved for military and not for civilians.

2.1.1 SNIPERS

One of the amazing invention of the U.S military and defence is the advanced sniper. A sniper is a highly trained marksman who operates alone, in a pair, or with a sniper team to maintain close visual contact with the enemy and engage targets from a concealed positions. These snipers use large calibers with .50 BMG. The most updated form of sniper UTG 96 Type Army Digital sniper w/ updated spring airs



Fig. 2.1: Smart tracking sniper



Fig. 2.2: UTG 96 type army digital sniper

2.1.2 OTHER WEAPONS

The other major weapons used by army are Auto 9 mm semi-automatic pistol, Beretta 92, sten machine carbine, Micro-Uzi, 1B1 INSAS assault rifle, IMI Galil 7.62 rifle, vidhwansak anti-material rifle, INSAG LMG, MG 2A1, MG 5A, MG6A etc.

3. Advanced Military Vehicles

3.1 Vehicles

Transportation plays an very important role in military. Usually the military camps are situated in borders of two countries which will be mostly desert areas, no-man area, Snow Mountains and other hazardous areas. The vehicles used by the military should be highly advanced. For this purpose an advanced part of automobile engineering has been used for the manufacture of the vehicles in the military.

3.1.1 Transportation Vehicles

The ordinary transportation vehicle used by the military should be upgraded in the following sectors. They are:

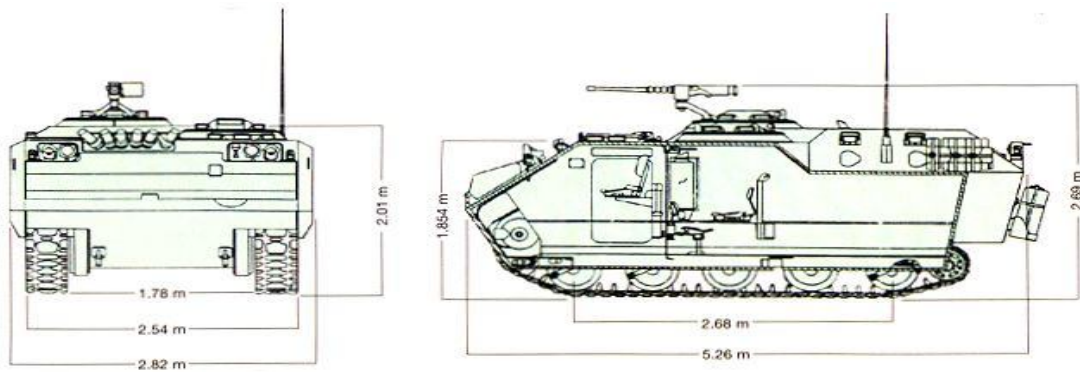


Fig. 3.1: ULTRA 3T vehicle used for transportation vehicle and also as tank.

- GPRS tracking system
- Bullet- proof security
- Mini Or machine gun for defence
- Optoelectronics communication and
- Security armor.

While designing a military transportation vehicle one should remember the tyres of the vehicles must able to withhold any hard conditions and it should be highly rigid. Another important sector is the safety. For this Purpose security armours and bullet proof security should be implemented.

3.1.2 TANKS

Tanks play a vital role in artillery. A tank is a tracked, armoured fighting vehicle designed for front-line combat which combines operational mobility and tactical offensive and defensive capabilities. Fire power is normally provided by a large caliber main gun in a rotating turret.



Fig. 3.2: U.S missile launcher



Fig. 3.3: German patriot missile launcher.

4. Advanced Communication Systems

4.1 Communication

Communication is another important need for an efficient military operation. It is very important for a team or battalion to communicate with other team or battalion during enemy attacking situations, cold war situations, defence situations, to provide informations about extending the borders and soon. As we discussed earlier the military camp areas are situated in a hazardous areas where communication becomes a great challenge. In order to overcome this challenge new advanced technologies are invented. Some of them are:

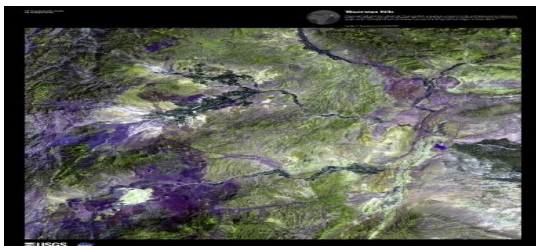
- Satellite communications
- Optoelectronics communications

4.1.1 Esterline Platform

One of the popular and high speed communication system platform is used by the U.S army belong to the ESTERLINE corporation. This platform combines both the communication systems and control grid systems. The major method included in the ESTERLINE platform is the MOSFET technology.

4.1.2 Satellite Communications

The other important means of communication is the satellite communication. But this is little bit slower than the fiber optics and optoelectronics communication systems.



The information is carried from one place to the satellite in the form of signals and then transmitted to the destination from the satellite

4.1.3 Optoelectronics Communications

The branch of technology concerned with the combined use of electronics and light. it is the study and application of electronics devices that source, detect and control light.

Note: This is one of the emerging technology for communication under research progress

5. Advanced Structures and Mapping the Borders

In the last centuries the borders between two nations are separated by a no man area and this area is guided properly with human security by forming camp areas at this place. But nowadays the borders between two nations are separated and is guided

continuously by satellite process and perfect border images are provided periodically. Not only are that secret laser technologies also employed at the borders for the security purposes.

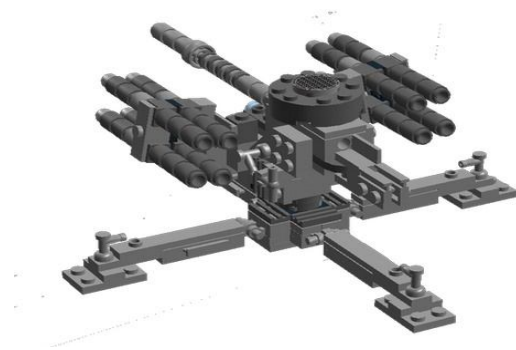


Fig. 5.1: Building materials



Fig. 5.2: Constructions.

Military structures falls under the category of the civil engineering where the buildings and camp areas are constructed with high security. The materials used for the construction purposes are more advanced and provide high stability and rigidity to the constructions. The camp areas and headquarters are protected by high tech security and continuously monitored by high tech cameras.

6. Other Advanced Weapons

The other advanced weapons used in military are missiles. Some of the missiles are given as:

- Surface to surface missile
- Surface to air missile
- Air to ground missile

6.1 Extended Range Multi Purpose Missile

The Extended Range multi-Purpose missile which is commonly known as SKY WARRIOR is the advanced one. This type of weapons uses the highly advanced missile technology. This missile was designed by LOOKHEED MARTIN from the U.S military. This missile has a very high range of attacking accuracy and a tracking system to detect where the destination is positioned.

Proton launch vehicle is an expended launch system used of both commercial and Russian government space launchers. It is one of the most successful heavy boosters in the history of space missile. This is one of the major launch missile used by the Russian defence ministry for defence and also for offence purposes.

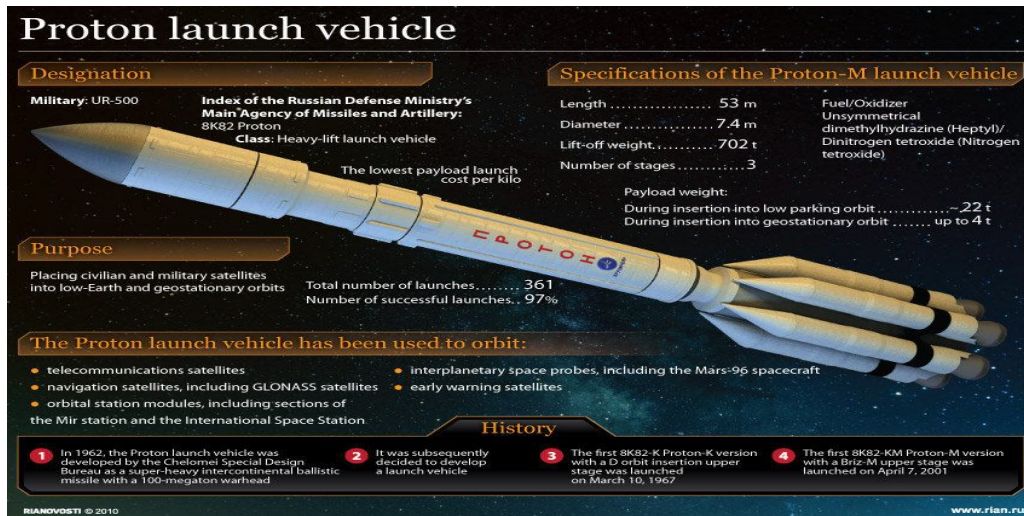


Fig. 12: Proton launch vehicle.

It is one of the most active missile with a total launches of 390 times with 345 successes. The payloads are Salyut and Salyut Mir. The engine used for this missile is 6 RD-275. The thrust capacity of the missile is 10.47 MN (1.9 Million pounds). The fuel used is N₂O₄/UDMH. This missile has four stages with different thrust capacity.

7. Conclusion

The main aim of this paper is to provide the overall development in almost all sectors in field of the military technology which includes weapons, equipments, transportation and others. This is only an idea or abstract about the military technology. By employing the highly advanced technology in our Indian military will makes our country to become the one among the most powerful country in the nation.

8. Acknowledgements

I affirm that the above details provided in the above article are collected by me and not copied from any other research papers or any published papers. The above given details are not published till now in any article. This is true to my knowledge.

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