# Pinaka Missile System

## Why in news?

The Ministry of Defence (MoD) signed contracts with three Indian companies for supply of six regiments of the Pinaka Rocket System.

## What is the contract?

- The acquisition wing of MoD has signed contracts with,
    a. Bharat Earth Movers Ltd,
    b. Tata Power Company Ltd (TPCL) and
    c. Larsen & Toubro (L&T).
- The six regiments would be added to the Regiment of Artillery of the Indian Army at a cost of Rs 2,580 crore.
- These Regiments will be operationalised along the Northern and Eastern Borders of our country.
- They are long range artillery systems that comprise 114 launchers with,
    a. 45 Command Posts to be procured from L&T,
    b. Automated Gun Aiming and Positioning System from TPCL and
    c. 330 vehicles to be procured from BEML.
- The induction is planned to be completed by 2024.

## What is the significance of this acquisition?

- India is facing hostilities on both fronts.
- So, the announcement enhancing the long range artillery capabilities can be looked as a strong signal to the adversaries.
- The ministry has called this step a major boost to ‘Make in India.’
- This flagship project showcases public private partnership under the aegis of Government of India (DRDO and MoD).
- [DRDO - Defence Research and Development Organisation]

## What is the origin of Pinaka rocket system?

- Pinaka attacks the targets prior to the close quarter battles which involve smaller range artillery, armoured elements and the infantry.
- The development of the Pinaka was started by the DRDO in 1980s.
- It was developed as an alternative to the multi-barrel rocket launching systems of Russian make, called like the ‘Grad’.

- Pinaka Mark-1 was first used in the battlefield during the Kargil War of 1999, quite successfully.
- Subsequently multiple regiments of the system came up over the 2000s.

## What are Pinaka's capabilities?

- Pinaka is primarily a multi-barrel rocket system (MBRL) system.
- It can fire a salvo of 12 rockets over a period of 44 seconds.
- One battery of Pinaka system consists of six launch vehicles.
- This is accompanied by the loader systems, radar and links with network based systems and a command post.
- One battery can neutralise an area one kilometre by one kilometre.
- The launchers have to 'shoot and scoot' to ensure that they themselves do not become the targets, especially due to its back blast.
- Thus the launcher vehicles should have a high degree of maneuverability.

## What are its versions?

- **Mark-I version** of Pinaka has a range of around 40 kilometres.
- **Mark-II version** can fire up to 75 kilometres.
- Over late 2010s, multiple successful tests of the Mark-II version have been carried out by the DRDO.
- This version of the rocket has been modified as a guided missile system by integrating it with the navigation, control and guidance system.
- The navigation system of the missile is linked with the Indian Regional Navigation Satellite System (IRNSS).
- In comparison to artillery guns, rockets are less accurate, but with addition of guidance and navigation systems, this aspect is taken care of.
- With its upgrades, the Pinaka Mark-II can be a key element in the "network centric warfare".
- The rocket system can operate various modes.
- They can carry different types of warheads.

**Source: The Indian Express**

SHANKAR IAS PARLIAMENT
Information is Empowering