



Pinaka Extended Range Rocket System

Why in News

Recently, the [DRDO \(Defence Research and Development Organization\)](#) successfully test fired the **Pinaka Extended Range (Pinaka-ER) Multiple Launch Rocket System (MLRS)**.

- Earlier, the DRDO also launched the [Supersonic Missile Assisted Torpedo System \(SMART\)](#).

Key Points

- **About:** //



- The Pinaka, a **Multi-Barrel Rocket-Launcher (MBRL) system** named after Shiva's bow, can fire a salvo of **12 rockets over a period of 44 seconds**.
- The **new version is equipped with advanced technology to enhance its strength**. The metal **weight is lesser** compared to the earlier version.
- The newly tested system can achieve **a range of up to 45km which is a big feat** for the [Indian Army](#).
 - The **existing Pinaka system**, which is already in the Army, has a range of up to **35-37km**.
- **Significance:**
 - The **new incarnation of pinaka represents one of the few examples of an evolutionary process** being followed with an indigenous Indian weapon system.

Background & Variants of Pinaka

- **Background:**

- The **development** of the Pinaka multi-barrel rocket systems was **started by the DRDO in the late 1980s**, as an **alternative to the Multi Barrel Rocket Launcher systems** of Russian make called the 'Grad', which are still used by some regiments.
- After successful tests of Pinaka Mark-1 in the late 1990, it **was first used successfully in the battlefield during the 1999 Kargil War**. Subsequently, multiple regiments of the system came up over the 2000s.

▪ **Variants:**

- DRDO has also developed and successfully tested the **Mk-II** and **guided variants of the Pinaka**, which has a range of around 60 km, while the **Guided Pinaka system has a range of 75 km** and has integrated navigation, control and guidance system to improve the end accuracy and enhance the range.
 - The navigation system of the Guided Pinaka missile is also **aided by the Indian Regional Navigation Satellite System (IRNSS)**.
- In 2020, an enhanced version of the **Pinaka Mark (Mk)-1 missile** was **successfully flight-tested** from the Integrated Test Range in Chandipur, off the coast of Odisha.

Source: TH

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