

Highly Agile Modular Munition Extended Range (HAMMER)

Prelims: Current events of national and international importance

Why in News?

India's state-owned Bharat Electronics Limited (BEL) and the French firm Safran Electronics and Defence (SED) recently signed a joint venture cooperation agreement (JVCA) to produce HAMMER.

- HAMMER is a modular guidance and propulsion kit fitted onto conventional bombs to make them Precise (GPS/INS or laser-guided), Long-range, and All-weather capable.
- It is also known as a glide bomb.
- It was developed by France.
- **Key Features -**
- **Modular design**
 - **Guidance kit (front section)** - Provides navigation and target accuracy
 - **Range extension & propulsion unit (rear section)** - Adds glide and powered range
 - **Bomb body (middle)** - Standard warhead (250 kg, 500 kg, 1000 kg class)
- **Guidance Types**
 - **INS/GPS** - For fixed targets in any weather
 - **Laser guidance** - For moving/high-value targets
 - **Imaging Infrared (IIR)** - For terminal targeting (in advanced models)
- **Extended Range**
 - **Low altitude launch** - ~15-20 km
 - **High altitude launch** - Up to 70 km
- **High Accuracy** - CEP (Circular Error Probable)- Less than 10 meters
- **Platforms that use HAMMER**
 - Rafale (India, France, Egypt, Qatar)
 - Mirage 2000

- Other NATO-compatible aircraft (with integration)
- **Significance for India** - India uses HAMMER with the **Rafale fighter jets**, giving the Indian Air Force:
 - Stand-off strike capability
 - Deep-strike precision
 - Better survivability by avoiding enemy air defenses
 - Ability to strike in mountainous terrain (useful along northern borders)

Reference

[The Indian Express | Highly Agile Modular Mmunition Extended Range \(HAMMER\)](#)

