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

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