DRDO does release trials of long-range glide bomb 'Gaurav'

"The development of LRGB (Long-Range Glide Bomb) will further enhance the capabilities of the Armed Forces to a great extent." - **Rajnath Singh** (Defence Minister)

Context - LRGB '**Gaurav'**, designed and developed indigenously by **Research Centre Imarat** (RCI), Armament Research and Development Establishment and Integrated Test Range, Chandipur.

The system has been realised with the support of Development-cum-Production Partners - Adani Defence Systems & Technologies, Bharat Forge and various MSMEs. The trials are paving the way towards induction of the weapon into the IAF. The Centre for Military Airworthiness & Certification and Directorate General of Aeronautical Quality Assurance contributed towards Certification and Quality Assurance.

Basic Facts

- **Organisation:** Defence Research and Development Organisation (DRDO)
- **Weapon System:** '**Gaurav**' – Long-range glide bomb
- **Trial Dates:** April 8–10, 2025
- Platform Used: **Su-30 MKI fighter jet**
- Bomb Weight: 1,000 kg
- Range Demonstrated: Close to 100 km
- **Target Type:** Land-based target on an island
- **Outcome:** Achieved **pin-point accuracy** in multiple configurations

What is a Glide Bomb?

- A **glide bomb** is an **aerial bomb with wings and guidance system** that enables it to glide toward a target after release.
- Unlike traditional bombs, it does **not require propulsion** — it relies on high-altitude release and aerodynamic surfaces.
- Offers standoff capability, allowing aircraft to strike without entering enemy air defence zones.

Key Technical Highlights

- **Multiple warhead configurations** tested — suggesting adaptability for different mission types (penetrative, fragmentation, etc.).
- **Integrated to multiple stations** on the Su-30 MKI — shows high modularity and compatibility.
- The weapon demonstrated **precision strike capabilities**, critical for minimizing collateral damage.

Strategic Significance

- Enhances India's air-to-ground standoff strike capability, vital in contested airspaces like:
  - Line of Control (LoC)
  - Line of Actual Control (LAC)
- Reduces risk to pilots and aircraft by allowing **long-range attacks** without breaching hostile airspace.
- Adds indigenous depth to India's **precision strike inventory**, reducing dependency on foreign munitions.

Comparative Advantage

- **Complements existing guided munitions like:**
  - SPICE bombs (Israeli)
  - Hammer bombs (French)

  - BrahMos-A (air-launched)
- **Compared to traditional gravity bombs:**
  - Higher survivability for aircraft
  - Greater mission flexibility

R&D and Indigenous Defence Boost

- Strengthens DRDO's role in developing **next-gen precision strike systems** under **Atmanirbhar Bharat**.
- Encourages **public-private partnerships** for future glide bomb series (lighter or heavier versions).
- Likely to be part of DRDO's **Smart Bomb family** (including Gaurav, Garuthmaa, etc.).

Implications for Indian Air Force (IAF)

- Enhances IAF's deep strike and surgical strike potential.
- Offers a **cost-effective** indigenous alternative to imported PGMs (Precision Guided Munitions).
- Likely to be deployed in **forward airbases** near sensitive borders for rapid deployment.