Extended Trajectory-Long Duration Hypersonic Cruise Missile (ET-LDHCM)

June 17, 2025 • vajiramandravi.com

Extended Trajectory-Long Duration Hypersonic Cruise Missile Latest News

India is preparing to test its most advanced indigenously developed hypersonic missile—the Extended Trajectory-Long Duration Hypersonic Cruise Missile (ET-LDHCM).

About Extended Trajectory-Long Duration Hypersonic Cruise Missile

- It is a **long-range hypersonic cruise missile.**
- It is **indigenously developed** by India's **Defence Research and Development Organisation** (DRDO) under a classified initiative known as '**Project Vishnu'.**
- Designed for **launch from land, sea, or air,** the missile enhances India's flexibility across strike platforms and mission types.

- Once operational, it will **place India among the handful of nations,** including the **US, China, and Russia, to field hypersonic weapon systems.**

Extended Trajectory-Long Duration Hypersonic Cruise Missile Features

- The ET-LDHCM system reportedly reaches speeds up to **Mach 8,** or about **11,000 kmph.**
- Designed for both **conventional and nuclear missions**, the missile can carry **warheads weighing** between 1,000 and **2,000 kg** over a **range of approximately 1,500 km.**
- Unlike ballistic missiles, the ET-LDHCM **flies at low altitudes** and is **capable of course correction mid-flight.**
- Its speed, altitude-hugging flight profile, and mid-air manoeuvrability are **designed to evade modern radar and air defence s**ystems, enabling deep strikes into adversary territory.
- **Powered by a scramjet engine** that uses atmospheric oxygen to sustain high speeds, the missile marks a major propulsion breakthrough.
- **Built with heat- and oxidation-resistant materials**, it can **withstand extreme temperatures** exceeding 2,000 degree celsius.

Source: INDIA
