Long Range Anti-Ship Hypersonic Missile (LR-AShM)

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Why in News?

Recently, DRDO showcased the Long Range Anti-Ship Hypersonic Missile (LR-AShM) for the first time at the 77th Republic Day Parade on Kartavya Path.

- **LR-AShM–** It is an ***indigenous hypersonic glide missile***, designed to meet the coastal battery requirements of the Indian Navy.
- **Developed By –** Defence Research and Development Organisation (DRDO)
- **Role –** Long-range anti-ship strike and sea-denial operations.
- **Operational Range –** ~1,500 km.
- **Target –** Static and moving naval targets.
- **Flight Profile –** Ballistic missiles follow a high, arched unpowered path, while *quasi-ballistic trajectory* missiles *fly lower and manoeuvre to evade interception.*
- **Speed –** Its hypersonic speeds ***start at Mach 10 and maintaining average of Mach 5.***
- **Propulsion System –** Ballistic missiles are boost-powered initially and then travel unpowered.
- It is a two staged solid propulsion rocket motor
    - Stage-1 separation after boost
    - Stage-2 burnout followed by unpowered atmospheric glide
- **Characteristics – Aerodynamic features –** High aerodynamic efficiency
- Low drag with effective lift and control.
- **Stealth –** Low-altitude flight
- High manoeuvrability.
- Difficult detection by ground- and ship-based radars.
- **Future Variants –** ***Extended-range, up to 3,500 km***, versions under development.
- Army, Air Force and ship-launched versions under consideration.

- **Status –** Induction expected in 2–3 years.

Reference

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