

INS Mormugao (Pennant D67)

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In news– The second of the Project 15B stealth-guided missile destroyers built by Mazagon Dock Shipbuilders Limited (MDSL), INS Mormugao (Pennant D67), was commissioned into the Indian Navy recently.

About INS Mormugao-

- The ship, named after a key port in Goa, was commissioned a day before the Goa Liberation Day celebrations.
- Over the last decade, the Indian Navy has commissioned three guided missile destroyers of the Kolkata class – INS Kolkata, INS Kochi, and INS Chennai – under the project codenamed 15A.
- These ships were a step ahead of their precursor Delhi class of ships – INS Delhi, INS Mysore, and INS Mumbai.
- All these ships were built by MDSL, one of the country's most important Defence PSUs. A ship 'class' describes a group of vessels of similar tonnage, usage, capabilities, and weaponry.
- The contract for four guided missile destroyers more advanced than the Kolkata class was signed in January 2011. This was **Project 15B**, and the lead ship, INS Visakhapatnam (Pennant D66) was commissioned into the Navy in November 2021.
- **Designed by the Warship Design Bureau, Indian Navy's in-house warship design body**, and built by MDSL in Mumbai, the **four ships of Project 15B were to be named after four major cities around the country – Visakhapatnam, Mormugao, Imphal, and Surat.**
- A ship class is identified by its lead ship, INS Visakhapatnam.
- It incorporates advanced stealth features and a higher degree of automation. The sleeker hull design and the radar-transparent deck fittings make the vessels

difficult to detect.

- The ship has around 75 per cent indigenous content.
- INS Mormugao – and the other three ships in the class – are 163 m long and 17.4 m wide, with a displacement of 7,300 tonnes.
- They have a total atmospheric control system (TACS) that offers protection to the crew from chemical, biological, and nuclear threats, as well as a state-of-the-art combat management system that can evaluate threats using analytical tools and create a tactical picture that includes available resources on board. The warships have a secure network for data from its sensors and weapons systems.
- The ship's firepower consists of vertically launched Barak-8 surface-to-air missiles and BrahMos surface-to-surface cruise missiles for long-range engagement of shore- and sea-based targets. The ship also has rail-less helicopter traversing, and a hangar facility.
- **The 'combined gas and gas' (COGAG) configuration integrates four gas turbines.** The propulsion system allows the ship to reach a maximum speed of 30 knots (55 km/h), and a maximum range of 4,000 nautical miles (7,400 km).
- **Technically, destroyers are a category of warships that have high speed, manoeuvrability,** and longer endurance to be part of the escort for larger vessels in a fleet, or a carrier battle group also known as a carrier strike group.
- Modern destroyers are swift, sleek, and difficult to detect, and primarily protect the fleets and carrier battle groups from short-range surface, air, and sub-surface attacks.
- Guided missile destroyers are capable of anti-aircraft and anti-submarine warfare, apart from anti-surface operations.
- Because of their speed, manoeuvrability, and strike capability, guided missile destroyers are key assets in

various types of naval operations, mainly offensive.