

The Defenders: INS Visakhapatnam

For Prelims: INS Visakhapatnam, P-15B, BrahMos, MILAN 2022

For Mains: Defence Technology, Security, Issues of maritime security of India and Measure Regarding those Issues

In its ever-increasing pursuit of <u>Atmanirabhar Bharat</u>, India commissioned the first <u>Project 15B</u> destroyer in 2021 to indigenously build frontline destroyers for the Indian Navy.

 Recently, the India-made stealth guided-missile destroyer INS Visakhapatnam was formally affiliated to the Visakhapatnam port.

What is INS Visakhapatnam?

- Named after the historic city of Andhra Pradesh on the east coast, Visakhapatnam, the 'City of Destiny', the ship has a total complement of about 315 personnel.
- INS Visakhapatnam is the lead ship of the P15B class of guided missile stealth destroyers and was commissioned on 21st November 2021.
- The ship symbolizes India's matured shipbuilding capability and quest for the <u>Make in India</u> <u>initiative</u> towards achieving <u>'Atmanirbhar Bharat'.</u>
- The crew of the ship abides by her motto 'Yasho Labhasva' a Sanskrit phrase that translates to 'Attain Glory'.
 - It **embodies the indomitable spirit and capability of this mighty ship** to achieve success and glory in every endeavour.
- Visakhapatnam class ships are follow-on of the Kolkata class destroyers (P-15A)
 commissioned in the last decade.
- The ship is on her maiden visit to the port for participating in the **Presidential Fleet Review** (**PFR**) and **MILAN 2022.**
 - The fleet review is a long-standing tradition followed by navies all across the world and
 it is an assembly of ships at a pre-designated place for the purpose of displaying loyalty
 and allegiance to the sovereign and the state.

What are the Features of INS Visakhapatnam?

- Amongst the largest destroyers built in India, INS Visakhapatnam has an **overall length of about 164 metres** and a displacement of over 7,500 tonnes.
- Visakhapatnam is capable of undertaking multifarious tasks and missions spanning the full spectrum of maritime warfare that is equipped with an array of weapons and sensors, which include supersonic surface-to-surface Brahmos missile and Barak-8 long-range surface to air missiles.
- It also has medium and short-range guns, anti-submarine rockets, and advanced electronic warfare and communication suits.
- The destroyer is fitted with indigenously developed anti-submarine weapons and sensors,

prominently the **Hull-mounted Sonar Humsa-NG**, heavyweight torpedo tube launchers and rocket launchers.

- HUMSA-NG is the **third generation indigenous**, ship borne, hull-mounted, Sonar system designed by Naval Physical & Oceanographic Laboratory, DRDO, Kochi and productionised by Bharat Electronics, Bangalore.
 - HUMSA-NG is a state of the art Active cum Passive Integrated Ship Sonar system **designed to be installed on a variety of naval surface platforms** such as Frigates, Destroyers, ASW Corvettes and other classes of ships.
- The Visakhapatnam ship can accommodate a crew of 312, has an endurance of 4,000 nautical miles and can carry out a typical 42-day mission with extended mission time in out of area operation.
- The ship is **propelled by a powerful combined gas and gas (COGAG)** propulsion plant, consisting of four reversible gas turbines, which enables it to achieve a speed of over 30 knots or approximately 55 km/hr.
- The ship is equipped to fight under Nuclear, Biological and Chemical (NBC) warfare conditions.

What is BrahMos?

- BrahMos is a joint venture between the <u>Defence Research and Development Organisation of</u>
 India (DRDO) and the NPOM of Russia.
 - BrahMos is named on the rivers Brahmaputra and Moskva.
- It is a two-stage (solid propellant engine in the first stage and liquid ramjet in second) missile.
- It is a multiplatform missile i.e it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.
- It operates on the "Fire and Forgets" principle i.e. it does not require further guidance after launch.
- Brahmos is one of the fastest cruise missiles currently operationally deployed with speed of Mach 2.8, which is nearly 3 times more than the speed of sound.

What is Project-15B?

- Four Guided missile Destroyers of Project 15B (P 15B) are under construction at M/s Mazagaon Dock Shipbuilders Limited, Mumbai. The contract for construction of these four ships was signed in 2011.
- These ships are amongst the most technologically advanced Guided Missile Destroyers of the world, with state-of-the-art weapon/sensor package, advanced stealth features and a high degree of automation.

What are the Features of the P-15B Ships?

- These ships are equipped with BrahMos supersonic cruise missiles and long-range Surface-to-Air Missiles (SAM).
- The ship has several indigenous weapons systems like **medium range Surface-to-Air Missile** (SAMs), indigenous torpedo tube launchers, anti-submarine indigenous rocket launchers and 76-mm super rapid gun mount.

What are the Other three Ships of Project 15B?

- The second ship of P15B, Mormugao was launched in 2016, and is being readied for harbour trials
- The third ship (Imphal) was launched in 2019 and is at an advanced stage of outfitting.
- The fourth ship (Surat) is under block erection and will be launched within this current

What is the Role of P-15B in the Security in India?

- The **Indian Navy's responsibilities** to safeguard a large coastline of 7516 Kms and about 1100 offshore islands along with 2.01 million sq km **Exclusive Economic Zone (EEZ)** have been enhanced in the present geopolitical scenario.
- Destroyers like the P-15B class shall play an important role in the larger oceans of the Indo-Pacific, making the Indian Navy a potent force.
- The guided missile Destroyers are deployed for various responsibilities like escort duties with the Carrier Battle Group to protect the Naval fleet against any air, surface and underwater threats.

