

Vindhyagiri frigate

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Context-The Vindhyagiri frigate will be launched by President Droupadi Murmu at Garden Reach Shipbuilders and Engineers Limited in Kolkata, according to the Indian Navy.

Key points-

- The INS Vindhyagiri's launch by Indian President Droupadi Murmu at Garden Reach Shipbuilders and Engineers Ltd. was a source of pride for the Indian Navy.
- It is a recent addition to the Indian Navy and is equipped to achieve new success in the future.

About:-

- The current stealth frigate "Vindhyagiri" for the Indian Navy was launched on 17th August in Kolkata by President Droupadi Murmu. The latest of three Project 17A (Alpha) frigates is the INS Vindhyagiri.
- It was constructed by the Indian Navy at the Garden Reach Shipbuilders and Engineers (GRSE) facility in Kolkata.

Description of Frigate:-

- They are frequently employed in surface warfare, anti-submarine warfare (ASW), patrolling maritime areas, and accompanying larger vessels.
- In terms of size, capabilities, and missions, a frigate is a sort of naval warship that lies between bigger destroyers and smaller corvettes.
- Frigates are flexible ships that can carry out a variety of missions since they are designed to have a balance between offensive and defensive capabilities.

Garden Reach Shipbuilders & Engineers(GRSE):-

An Indian public sector shipbuilding firm is called Garden Reach Shipbuilders & Engineers (GRSE). One of India's top shipyards, GRSE has its headquarters in Kolkata (Calcutta) and specialises in designing and building a variety of vessels for the Indian Navy, Coast Guard, and private clientele.

Project 17Alpha:-

- The Indian military started the project to build a number of stealth guided-missile frigates.
- The Indian Navy launched Project 17 Alpha frigates (P-17A) in 2019.
- With increased stealth features, cutting-edge weapons and sensors, and platform management systems, frigates are the Project 17 (Shivalik Class) Frigates' successor class.
- The Warship Design Bureau WDB of the Indian Navy has created the Project 17A ships internally.
- A significant 75% of the equipment and system orders for Project 17A ships are from domestic companies, including Micro, Small, and Medium-Sized Enterprises MSMEs, in keeping with the nation's unwavering commitment to Aatma Nirbharta.
- The P17A ships are guided missile frigates.
- With a displacement of about 6,670 tonnes and a speed of 28 knots, they are 149 metres long. Threats can be neutralised by these ships in the air, on the surface, and below the surface

Stealth Frigate:-

- In naval cooperation, stealth frigates are often used for operations including anti-submarine, anti-air, maritime patrol, surveillance, and escorting missing people.
- A stealth frigate is a specific kind of naval warship built with cutting-edge stealth technology and characteristics to reduce its radar cross-section and overall visibility to enemy detection systems.
- The lowered signatures of stealth frigates are frequently included into their design.
- With the use of this technology, the frigate may operate with a lower likelihood of being picked up by radar, which makes it more difficult for enemies to follow, target, and engage the vessel.

Conclusion:-

The recently christened Vindhyagiri serves as a representation of India's resolve to honor its historic naval legacy while advancing toward a future with indigenous defense capabilities.