

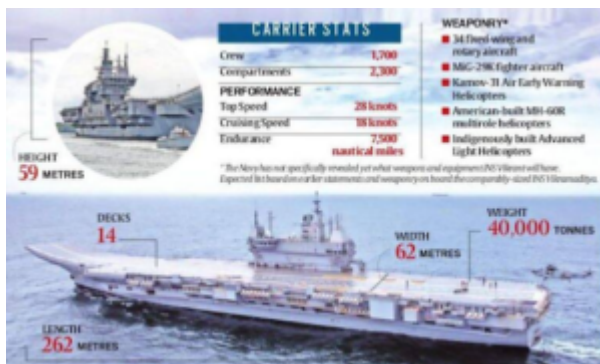
INS Vikrant

August 27, 2022

In news— India's first Indigenous Aircraft Carrier (IAC-1)-INS Vikrant will be commissioned in September 2022.

About INS Vikrant-

- **Vikrant is the largest warship to have ever been built in India, and the first indigenously designed and built aircraft carrier for the Indian Navy.**
- The Navy took delivery of the warship, **designed by the Warship Design Bureau (WDB)**, its in-house organisation, from the manufacturer, **Cochin Shipyard Ltd (CSL)**, a public sector shipyard under Ministry of Ports, Shipping & Waterways, ahead of schedule on July 28.



- **Only five or six nations currently have the capability of manufacturing an aircraft carrier, and India has joined this prestigious club now.**
- While the United States Navy has 11 aircraft carriers, China too is moving ahead aggressively with its aircraft carrier programme. It has two carriers now, a third is in the making, and another two are likely to be commissioned within a decade.
- **India has had aircraft carriers earlier too – but those were built either by the British or the Russians.**
- The **'INS Vikramaditya'**, which was **commissioned in 2013** and which is currently the Navy's only aircraft carrier,

started out as the **Soviet-Russian warship 'Admiral Gorshkov'**.

- **India's two earlier carriers, the 'INS Vikrant' and the 'INS Viraat', were originally the British-built 'HMS Hercules' and 'HMS Hermes'.**
- These two warships were commissioned into the Navy in 1961 and 1987 respectively.
- **The name 'INS Vikrant' originally belonged to India's much-loved first aircraft carrier, a source of immense national pride over several decades of service before it was decommissioned in 1997.**
- **The original 'Vikrant', a Majestic-class 19,500-tonne warship, which was acquired from the UK in 1961, played a stellar role in the 1971 War with Pakistan.**
- India deployed the 'Vikrant' in the Bay of Bengal, and its two air squadrons of Sea Hawk fighter jets and Alize surveillance aircraft were used in strikes on ports, merchant ships, and other targets, and to prevent Pakistani forces from escaping through maritime routes.
- **The warship-grade steel required for the construction of the IAC-1 was indigenised through Steel Authority of India Limited (SAIL) in collaboration with Defence Research & Development Laboratory (DRDL) and the Indian Navy.**
- **The indigenous content of the project is approximately 76%.**
- According to the Indian Navy, **major Indian industrial houses, viz., BEL, BHEL, GRSE, Keltron, Kirloskar, L&T, Wartsila India, etc., as well as over 100 MSMEs were involved in building of the indigenous equipment and machinery on board.**
- **In 2021, as the IAC-1 started her first sea trial.**
- **The new warship is comparable to India's existing carrier 'INS Vikramaditya', which is a 44,500-tonne vessel and can carry up to 34 aircraft, including both fighter jets and helicopters.**
- The ship is **capable of operating 30 aircraft including**

MiG-29K fighter jets, Kamov-31 Air Early Warning Helicopters, MH-60R Seahawk multi-role helicopters, as well as the Advanced Light Helicopters (ALH) built by Bengaluru-based Hindustan Aeronautics Ltd, and the indigenously manufactured Light Combat Aircraft (LCA) (Navy).

- Using a novel aircraft-operation mode known as **Short Take Off But Arrested Recovery (STOBAR)**, the IAC is **equipped with a ski-jump for launching aircraft**, and a set of three 'arrestor wires' for their recovery onboard.
- **The MiG-29K and Kamov-31 aircraft are already in use on the 'Vikramaditya'**.
- The MH-60R Seahawks are manufactured by the American aerospace and defence company Lockheed Martin.
- According to the Navy, the new warship will offer an incomparable military instrument with its ability to project Air Power over long distances, including Air Interdiction, Anti-Surface Warfare, offensive and defensive Counter-Air, Airborne Anti-Submarine Warfare and Airborne Early Warning.
- **The 262 m long and 62 m wide 'Vikrant'** displaces approximately **43,000 tonnes when fully loaded**, and has a maximum designed speed of about 52 km/h with an endurance of 7500 NM.
- The **ship has around 2,200 compartments designed** for a crew of around 1,600, including specialised cabins to accommodate women officers and sailors.
- The carrier is **designed with a very high degree of automation for machinery operations**, ship navigation and survivability. The carrier is **equipped with the latest state of the art equipment and systems**.
- It boasts a **fully-fledged state of the art medical complex** with the latest **medical equipment facilities including major modular OT**, emergency modular OT, physiotherapy clinic, ICU, laboratories, CT scanner, X-Ray machines, dental complex, isolation ward and

telemedicine facilities.

INS Vishal-

- Since 2015, the Navy has been seeking approval to build a third aircraft carrier for the country, which, if approved, will become India's second Indigenous Aircraft Carrier (IAC-2).
- This proposed carrier, to be named '**INS Vishal**', is intended to be a giant 65,000-tonne vessel, much bigger than both IAC-1 and the '**INS Vikramaditya**'.