

INS Sindhudhvaj

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In news— INS Sindhudhvaj was recently decommissioned after 35 years of glorious service to the nation.

About INS Sindhudhvaj-

- **Commissioned into the Navy in June 1987**, Sindhudhvaj, was one of the 10 Kilo-class submarines India acquired from Russia between 1986 and 2000.
- With its decommission, the Navy now has 15 conventional submarines in service.
- Sindhudhvaj, as the name suggests, **was the flag bearer of indigenisation** and Indian Navy's efforts towards achieving Atma Nirbharta **in the Russian built Sindhughosh class submarines** throughout her journey in the navy.
- She had **many firsts to her credit including operationalisation of the indigenised sonar USHUS, Indigenised Satellite Communication systems Rukmani** and MSS, Inertial Navigation System and Indigenised Torpedo Fire Control System.
- She also successfully undertook personnel transfer with Deep Submergence Rescue Vessel and was the **only submarine to be awarded CNS Rolling trophy for Innovation** by the Honourable Prime Minister of India.
- The **'Kilo' class is the most common conventional submarine in the world**, with nearly 60 of them in service with various navies.
- **Of the 10 that India had, it had lost INS Sindhurakshak, a 'Kilo' class submarine**, in a fire accident in 2013. Another submarine, INS Sindhuvir, was handed over to the Myanmar Navy in 2020 as part of a bilateral defence collaboration.
- Besides the seven Kilo class, India has four Type 209 submarines of German origin and four of the indigenously

manufactured Scorpene class of French origin. Two more Scorpene submarines will be delivered to the Indian Navy by 2023 end.

- **India also has INS Arihant, a nuclear-powered ballistic missile carrying submarine (SSBN).**

What is USHUS?

- USHUS is an **integrated sonar system developed by the Naval Physical and Oceanographic Laboratory (NPOL) of the Defence Research and Development Organisation (DRDO), India**, for use in submarines of the Indian Navy.
- It is primarily designed to be used in Sindhughosh class submarines, though it is reported to be fitted in the Arihant-class nuclear-powered ballistic missile submarines as well.
- It is reported to be **superior to its Russian equivalents.**
- It is **used for detecting and tracking enemy submarines, surface vessels**, and torpedoes and can be used for underwater communication and avoiding obstacles.
- The sonar can work in both active and passive mode, and is capable of interception and underwater communication. It can detect both surface ships and submarines at a range of a few kilometres.
- The production of the sonar is done by Bharat Electronics (BEL) at its Bengaluru unit.