

What is INS Arighat?

October 27, 2025 • vajiramandravi.com



About INS Arighat:

- It is India's **second indigenously built nuclear-powered ballistic missile submarine (SSBN)**, following India's first nuclear submarine, **INS Arihant**, commissioned in 2018.
- It was constructed at the **Indian Navy's Ship Building Centre (SBC) in Visakhapatnam**.
- It represents a **critical component of India's nuclear triad**, enabling the nation to launch nuclear missiles from land, air, and sea.
- **Features:**
 - It measures 111.6 meters in length, has a beam of 11 meters, a draught of 9.5 meters, and a **displacement of 6,000 tonnes**.
 - It will have one seven-blade propeller **powered by a pressurised water reactor**.
 - It can achieve a maximum speed of 12-15 knots (22-28 km/h) when on surface and 24 knots (44 km/h) when submerged.
 - It can **carry up to four nuclear-capable K-4 SLBMs** (Submarine Launched ballistic Missile) with a **range of over 3500 kilometers** or **twelve** conventional warhead **K-15 SLBMs with a range of about 750 kilometers**.
 - The **K-15** can also carry a **strategic nuclear warhead**.

- It also carries **torpedoes and mines**.
 - Additional safety measures include two standby auxiliary engines and a retractable thruster for emergency power and mobility.
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Q1. What are Ballistic Missiles?

A ballistic missile is a rocket-propelled, self-guided strategic-weapons system that follows a ballistic trajectory to deliver a payload from its launch site to a predetermined target. They are powered initially by a rocket or series of rockets in stages, but then follow an unpowered trajectory that arches upwards before descending to reach its intended target. They can carry conventional high explosives as well as chemical, biological, or nuclear munitions.

Source: India 'fully ready' to add to fleet 2nd submarine with nuclear-tipped missiles

Source: <https://vajiramandravi.com/current-affairs/ins-arighat/>

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