

# INS Surat, INS Nilgiri and INS Vaghsheer

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## INS Surat, INS Nilgiri and INS Vaghsheer : A New Era in Naval Dominance

### Introduction

The recent commissioning of **INS Nilgiri**, **INS Surat**, and **INS Vaghsheer** at the Naval Dockyard in Mumbai marks a landmark event for the Indian Navy. For the first time, a frigate, a destroyer, and a submarine were commissioned together, showcasing India's growing maritime strength and self-reliance.

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### INS Nilgiri: Lead Ship of Project 17A Stealth Frigates

#### Key Features and Capabilities

- Developed under **Project 17A** as an advanced version of the Shivalik-class frigates (Project 17).
- **Construction:**
  - Built indigenously by **Mazagon Dock Shipbuilders Limited (MDL)** and **Garden Reach Shipbuilders and Engineers (GRSE)**.
  - **Keel laid:** December 2017.
  - **Launched:** September 2019.
  - **Delivered:** December 2024.
- **Weapons and Technology:**
  - **Supersonic surface-to-surface missiles.**
  - **Medium Range Surface-to-Air Missiles (MRSAM).**
  - **Upgraded 76 mm guns and rapid-fire close-in weapon systems.**
- **Versatile Roles:** Capable of handling anti-surface, anti-air, and anti-submarine warfare.

#### Other Ships in Class

- Six other frigates (Himgiri, Taragiri, Udaygiri, Dunagiri, Vindhyagiri, and another unnamed vessel) are under construction at MDL and GRSE.
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### INS Surat: Advanced Guided Missile Destroyer (Project 15B)

## Specifications

- **Displacement:** 7,400 tonnes.
- **Length:** 164 meters.
- **Speed:** Exceeds **30 knots (56 km/h)** during trials.

## Key Features

- **India's First AI-Enabled Warship:** Uses indigenously developed **Artificial Intelligence** solutions for enhanced operational efficiency.
- Equipped with:
  - **Surface-to-air missiles.**
  - **Anti-ship missiles.**
  - **Torpedoes.**
  - Advanced sensors for **network-centric warfare.**
- High-speed, maneuverable, and designed for **offensive operations.**

## Project 15B: Stealth Destroyers Evolution

- Built as advanced variants of the Kolkata-class destroyers under Project 15A.
- **Predecessors:** INS Visakhapatnam, INS Mormugao, and INS Imphal were commissioned in the last three years.

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## INS Vaghsheer: Sixth and Final Kalvari-Class Submarine (Project 75)

### Design and Development

- **Based on Scorpene Class:** Designed by French Naval Group and Spanish Navantia.
- Built at **Mazagon Dock Shipbuilders Limited (MDL)** under Project 75.

### Key Features

- **Diesel-Electric Transmission:** One of the world's most **silent and versatile submarines.**
- **Armaments:**
  - **Wire-guided torpedoes.**
  - **Anti-ship missiles.**
  - **Advanced sonar systems.**
- Designed for missions like:
  - **Anti-surface and anti-submarine warfare.**
  - **Intelligence gathering and surveillance.**
  - **Special operations and naval mine-laying.**

### Project 75 Overview

- Six Kalvari-class submarines were built with **technology transfer from France.**
- **Commissioned Submarines:**
  - INS Kalvari (2017), INS Khanderi (2019), INS Karanj (2021), INS Vela (2021), INS Vagir (2023).
  - **INS Vaghsheer:** Commissioned in January 2025.

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## Strategic Importance

### Indigenous Construction

- All three vessels are **Made in India**, highlighting the success of the **Make in India** initiative.

### Enhancing Naval Strength

- These platforms significantly strengthen India's maritime defense capabilities and enable the Navy to deter **regional threats**.

### Operational Versatility

- Each vessel serves unique roles:
  - **INS Nilgiri**: Multi-mission frigate with blue-water operational capabilities.
  - **INS Surat**: High-speed, offensive destroyer with network-centric warfare capabilities.
  - **INS Vaghsheer**: Stealth submarine for underwater and covert operations.

### Bolstering Maritime Influence

- These ships enhance India's strategic presence in the **Indian Ocean Region (IOR)** and establish its role in global maritime security.

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## Conclusion

The commissioning of **INS Nilgiri**, **INS Surat**, and **INS Vaghsheer** is a testament to India's growing naval capabilities and self-reliance in defense manufacturing. By adding these advanced platforms, India strengthens its position as a formidable maritime power, ensuring security and stability in the **Indian Ocean Region** and beyond.

