

₹raditionally, Navy Day is celebrated annually on 4 December, to mark free India's first naval victory in the 1971 War and to remind our fellow-citizens of their forgotten maritime heritage. What makes Navy Day 2018 truly special is the operationalisation of India's first homebuilt, nuclear-propelled, ballistic-missile armed submarine (termed SSBN), INS Arihant. Announced by none less than PM Modi on 6 November, Arihant's maiden 'deterrent patrol', with nuclear-tipped missiles, not only demonstrated that the submarine (after a reported mishap in 2017) is fully operational, but also proved the crew's proficiency in operating its nuclear-reactor and other complex systems and establishment of standard operating procedures.

Although an early step in evolution of the 'nuclear triad', this puts the Indian Navy in an exclusive club of five navies that currently are capable of mounting a deterrent SSBN patrol. Apart from its strategic significance, the *Arihant* is a live example of how PM Modi's 'make in India' dream could be actualised. Initiated

some decades ago, this DRDO-funded project has been managed entirely by IN personnel and has triggered a country-wide indigenisation process by which small and medium industries have collaborated with the navy to deliver high-quality components for the nuclear submarine programme.

A Navy made in India

A deep-rooted urge to 'make in India' has been embedded in the psyche of India's naval leadership ever since independence. The seeds of self-reliance were planted in the early 1960s, when the government was persuaded by NHQ that the challenge of indigenous warship production had to be taken up. In the face of great scepticism, Mazagon Docks delivered the first licence-built frigate of British design, INS *Nilgiri*, in 1972. In the half century since, Indian shipyards have launched over a hundred warships ranging from patrol boats to frigates and destroyers, from hydrographic vessels to nuclear submarines.

The pinnacle of this admirable endeavour was achieved in 2013, when

Cochin Shipyard launched India's first indigenous aircraft carrier (IAC-1). The ship would have been under construction for 13 years when it eventually goes to sea in 2021-22. Building an aircraft carrier, as the navy is learning, is a complex undertaking, beset with technical and management challenges. During a recent visit on board, the author could not help but being impressed by the size and complexity of this steel leviathan, designed by our own naval architects and being constructed by Indian hands. The ship is in an advanced stage of fitting-out, but the pace of work by Cochin Shipyard Ltd (under the Ministry of Shipping) could certainly be accelerated if the MoD were to show signs of urgency about this strategic project.

This prolonged gestation period of IAC-I will have been worth it if the right lessons have been learnt and the priceless experience gained, is ploughed into a bigger and better follow-on ship. The case for the IAC-2, however, remains in limbo, even as the Chinese PLA Navy's (PLAN) second new carrier undergoes sea-trials and reports speak of China's plans to build

■VI/2018 41