

N-sub will have trials for more than a year

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India on Sunday entered a select club with the formal launch of the country's first indigenous nuclear-powered submarine even as prime minister Manmohan Singh assured the world that the country had "no aggressive designs".

While the submarine, the most secure platform for nuclear weapons, will be formally commissioned into the navy only after harbour and sea trials that may take more than a year, India has become the sixth nation to have such a capability after the US, Russia, UK, France and China.

Defence experts say the first test is now to ensure that the on-board reactor attains criticality (when the nuclear chain reaction becomes self-sustaining, kick-starting the re-



Nuclear submarine INS Arihant

actor). Russian help, both in terms of design and technology, was critical to the development of the submarine, sources said. It completes India's triad — capability to launch nuclear weapons from land, air and sea. As India has sworn to the no-first-use doctrine, the submarine is the most important component of the nation's second-strike capability.

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India is now sixth nation with the capability to build nuclear-powered submarines

We're far behind China

China has at least 11 nuclear-powered submarines. Given the acrimonious relations with Beijing, New Delhi has to have a credible second-strike capability.

Pvt sector pitched in

For the past two decades, a few of India's biggest business houses have been quietly aiding the construction of the country's first nuclear-powered submarine. Larson & Toubro built the hull for the submarine, Tata Power made the control systems and the Walchandnagar Industries designed many parts for the steam turbine.