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Pakistan's Acquisition of the Hangor-Class Submarine and its Impact on India

Ms Anuttama Banerji
Associate Fellow, Centre for Aerospace Power and Strategic Studies

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Pakistan recently commissioned the first of eight Hangor-class submarines during Pakistani President Asif Ali Zardari's visit to China. The official ceremony took place in the Chinese city of Sanya, which hosts the People's Liberation Army Navy (PLAN's) surface fleet and submarine support facility. It also hosts the Yulin naval base, which is the most important military base in the South China Sea.[1] Hence, not only was the choice of venue significant, but also the commissioning of the Hangor submarine marked a key step in Pakistan's ongoing naval modernisation programme.

The event also demonstrated the strategic relationship between Beijing and Islamabad. The commissioning of the Hangor submarine is significant as it diversifies Pakistan's nuclear delivery capability from a purely land-based deterrent. Although built in China and viewed as a traditional replacement for the Agosta 90B submarines Pakistan acquired from France in the 1980s, the commissioning also strengthensPakistan's "sea denial capabilities."[2]

Given Pakistan's interest in maintaining an enduring presence in the Bay of Bengal, an area of tactical operations where Pakistan's presence ceased to exist in 1971,[3] the acquisition of the submarine also provides Pakistan with a protracted presence in the Bay of Bengal sub-region of the Indian Ocean Region (IOR), with domain awareness being provided by Pakistan's friends in the region.

Pakistan has suggested that the commissioning of the Hangor submarine is a "historic milestone" for its navy. It is meant to be a strategic deterrent to strengthen its second-strike capability against India, since the submarine is likely to be armed with a submarine-launched nuclear cruise missile. The submarine is also likely to integrate the Babur-3 sea-launched cruise missile (SLCM). With a range of 450 kilometres, this SLCM provides Pakistan with second-strike capability, although the range continues to be limited. Babur-3 is incidentally the sea-launched variant of the ground-launched Babur-2 missile.[4]

To recall, India has formally commissioned and inducted INS *Arihant* (S2), INS *Arighaat* (S3), and INS *Aridaman* over the years. These ballistic missile submarines (SSBNs) demonstrate the maturity of India's nuclear triad. For example, INS *Aridaman* possesses a larger hull and has improved endurance in comparison to its predecessors, Arihant and Arighaat.[5] According to existing reports, INS *Aridaman* can carry either eight K-4 ballistic missiles, with a range of 3,500 kilometres, or about 24 K-15 missiles, with a range of 750 km.

Commissioning of the Hangor Submarine and AIP Technology

In contrast with India's nuclear-propelled SSBNs, the Hangor-class submarine is a derivative of the Chinese Type 039 submarine[6] and is equipped with advanced combat systems, modern sensors, and Air-Independent Propulsion (AIP) technology. This provides it with greater underwater endurance and the ability to remain undetected for longer periods.[7] AIP, or air-independent power, is a key marine propulsion technology that enables a non-nuclear submarine to operate sans the need to access atmospheric oxygen, as occurs in traditional diesel-engine submarines through surfacing or the use of a snorkel.[8]

The operational effectiveness of the submarine is more varied than just being used for delivery of nuclear warheads since it can potentially lay mines and attack adversary craft, while limiting surface appearances. This enhanced stealth capability potentially acts as a credible "force multiplier" during naval battles.[9]

If the other Hangor-class submarines are delivered on time, Pakistan will have greater operational capability to track Indian ships with greater frequency with Chinese support. Along with its Chinese-origin long-range HQ-9/P, medium-range LY-80, and the short-range FM-90 surface-to-air missiles (SAMs) and its sea-based capabilities, including the C-802 anti-ship cruise missiles[10] and the Hangor submarines, Pakistan can potentially counter India at sea.

Larger Picture

With the acquisition of the submarine, Pakistan believes that it has acquired a sort of second-strike capability. Sea-based nuclear forces, especially submarines and vessels carrying nuclear-armed missiles, tend to provide that option to states. But whether this will translate to stable nuclear deterrence remains to be seen. Pakistan's overall nuclear strategy will determine that. Until now, it has rested on the plank of nuclear brinkmanship. Will the acquisition of the submarines and the confidence in the ability to second strike make Pakistan less reliant on projection of first use? Time will tell. Meanwhile, seen in conjunction with India's sea-based platforms capable of delivering nuclear ordnance, India will continue to have the strategic edge. Therefore, India should take note of this development but not view this acquisition as a significant strategic shift.

India should focus on ensuring the timely completion of its own submarine acquisition programme so its SSBNs and potentially SSNs (nuclear-powered attack submarines) continue to act as strategic deterrents at sea, and India could eventually move towards a Continuous at Sea Deterrence (CASD) posture if desired in the long run.

Notes:

[1] Damen Cook, "China's most important South China Sea Military Base," *The Diplomat,* March 09, 2017, https://thediplomat.com/2017/03/chinas-most-important-south-china-sea-military-base/. Accessed on August 04, 2026.

[2] 'Sea denial' is viewed as an enabling condition within naval parlance when one side does not see merit in using the sea but sees strategic benefit in denying the adversary the same space. For more inputs, please see: "Underwater Power Shift: Pakistan's PNS Hangor enters service as India's Project 75-I delays deepen strategic imbalance," *Defence Security Asia,* May 02, 2026, https://defencesecurityasia.com/en/underwater-power-shift-pakistan-hangor-india-project-75i-strategic-imbalance/. Accessed on August 04, 2026.

[3] "Pakistan eyes return to Bay of Bengal for first time since 1971 with Hangor-class submarines," *Marine Insight,* June 18, 2026, https://www.marineinsight.com/pakistan-eyes-return-to-bay-of-bengal-for-first-time-since-1971-with-hangor-class-submarines/. Accessed on August 04, 2026.

[4] "Pakistan conducts first test of submarine launched "Babur-3" cruise missile," CSIS Missile Defence Project, January 10, 2017, https://missilethreat.csis.org/pakistan-conducts-first-test-submarine-launched-babur-3-cruise-missile/. Accessed on August 04, 2026.

[5] Ravi Shankar, "India commissions third SSBN, bolstering sea-based nuclear deterrence," *Bharat Shakti,* April 03, 2026, https://bharatshakti.in/india-commissions-third-ssbn-bolstering-sea-based-nuclear-deterrence/. Accessed on August 04, 2026.

[6] "Fact Sheet: Pakistan Submarine Capabilities," *Nuclear Threat Initiative,* September 04, 2024, https://www.nti.org/analysis/articles/pakistan-submarine-capabilities/. Accessed on August 04, 2026.

[7] "First Hangor-class submarine arrives at Karachi port," *Dawn,* June 11, 2026, https://www.dawn.com/news/2007071. Accessed on August 04, 2026.

[8] Giunio G Santi and Francesco Popia, "The Promise of Better Submarine Air-Independent Propulsion," *United States Naval Institute,* vol. 147/3/1417, Proceedings, March 2021, https://www.usni.org/magazines/proceedings/2021/march/promise-better-submarine-air-independent-propulsion. Accessed on August 04, 2026.

[9] Prasun Kashyap, "Breathing Underwater: How AIP systems revolutionise submarine warfare," *The Geostrata,* February 10, 2025, https://www.thegeostrata.com/post/breathing-underwater-how-aip-systems-revolutionize-submarine-warfare . Accessed on August 04, 2026.

[10] "Pakistan test-fires long range anti-ship cruise missiles," *Xinhua,* March 06, 2018, http://www.xinhuanet.com/english/2018-03/06/c_137018328.htm. Accessed on August 07, 2026.