INS Aridaman: India’s Third SSBN and the Dawn of Credible Sea-Based Deterrence

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India and SSBNs

On 03 April 2026, with the commissioning of the third Arihant-class SSBN, INS Aridaman, at Visakhapatnam, India, crossed a critical and consequential strategic milestone. Aridaman follows the earlier two of the same class, INS Arihant and INS Arighaat, which were commissioned in 2016 and 2024, respectively. The trio completes the deployment thumb rule: three submarines are needed to ensure continuous deployment of one at sea. The length of deployment of SSBNs will be much longer than that of a conventional submarine, even with AIP. Thus, for every one submarine at sea, there will be one in some sort of maintenance and one preparing for the next deployment, hence the number three. Therefore, with the commissioning of Aridaman, India has seen the dawn of a credible sea-based deterrence. Globally, it is called the ‘rule of thirds’, and some SSBN operating nations use the

‘rule of fourths’. Commissioning of the fourth SSBN would add surety of at least one SSBN on deployment. The other major factor is the range of the missiles carried onboard. Aridaman is longer than the earlier two SSBNs because it has eight launch tubes, whereas Arihant and Arighaat have four. This provides Aridaman the flexibility to carry K-4 Submarine-Launched Ballistic Missiles (SLBMs), the shorter-range K-15 SLBMs, or a mix of both, which adds to the deterrent value.

Value of a Credible Sea-Based Nuclear Deterrence

The fact that India focused on SSBNs before SSNs, unlike other nuclear-powered submarine operating nations, bears testimony to the importance placed on the sea-based leg of India’s nuclear triad. Facing two nuclear-powered adversarial nations on land with a growing emphasis on the maritime domain, and conflicts with Pakistan under a nuclear umbrella, focus on the most survivable component of the nuclear triad was a natural approach. The transformative leap with the operationalization of the K-4 SLBM from INS Arighaat enhanced the deterrent value by increasing the range from the 750 km-capable K-15 to 3,500 km. The K-4 covers all of Pakistan and most of China, and the successful development of the K-5, with a range of 5,000 km, will further strengthen the deterrent effect. Imagine a scenario in which Delhi can target Beijing from the Bay of Bengal, with the SSBN having adequate operational area and protection from the adversary. The new VLF station planned at Vikarabad would complement the existing VLF station at Tirunelveli and enable seamless, secure worldwide communication with dived submarines, thereby enhancing their stealth capability and effectiveness.

Apart from the deterrent value and the no-first-use policy, the essential survivable second-strike capability is the bedrock on which India’s nuclear doctrine is based. India’s nuclear doctrine looks at building and maintaining a credible minimum deterrent with the use of nuclear weapons in retaliation against a nuclear attack on Indian territory or on

Indian forces anywhere. It also states that nuclear weapons will not be used against non-nuclear states, but reserves the option of retaliating with nuclear weapons should there be a major attack against India or Indian forces anywhere, using biological or chemical weapons. The strength of the doctrine lies in the process that nuclear retaliatory attacks will only be authorized by the civilian political leadership through the Nuclear Command Authority.

Survivability and Numbers

The essential survivability factor of the sea-based leg of the triad stems from the raison d'être of a submarine: it is extremely difficult to detect and hence target. A submerged SSBN is inherently concealed, mobile, and nearly impossible to detect and target, lending an irreducible credibility to India's nuclear doctrine of retaliation. Therefore, while SSBNs offer the best survival potential, India's reliance on a small number of SSBNs may be consistent with a minimalist deterrence posture; however, more may be needed in the future.

The rapidly deteriorating global nuclear order could dictate this. The collapse of the Intermediate Range Nuclear Forces (INF) Treaty in 2019 and the expiry of the new Strategic Arms Reduction Treaty (START Treaty) on 05 February 2026 have left the world with no functioning nuclear weapons control framework. The absence of constraints and guardrails may reinforce incentives for regional nuclear powers, like China, to expand their nuclear arsenals. China increased its nuclear arsenal from 300 weapons in 2020 to an estimated 600 nuclear weapons in 2025, with an estimate that the number will increase to over 1,000 by 2030. In such a strategic environment, where global disarmament obligations are being abandoned and nuclear brinkmanship is slowly becoming the order of the day in conflicts, operating SSBNs as a robust and survivable sea-based deterrent is not merely prudent; it is strategically indispensable.