



## **INS Arihant Launch - Strengthening India's Nuclear 'Triad'**

### **What is the issue?**

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- India's first nuclear propelled submarine, INS Arihant, was recently announced to be operationally ready.
- With Pakistan's India-aimed nuclear doctrine and China's ambiguity, India needs to boost its nuclear arsenal.

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### **What is India's nuclear vision?**

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- India earlier had the capabilities to launch nuclear weapons from the air, mounted largely on its Mirage 2000 and Jaguar Aircraft.
- The similar land based missile range from Agni 1 missile (range of 700-900 km) to Agni 5 Missiles (range of 5500 km).
- India's aim has been to develop a "credible nuclear deterrent" with capabilities to deliver nuclear weapons from multiple locations on land, air and sea.
- The targets are all strategic areas and centres in India's two nuclear-armed neighbours - China and Pakistan.

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### **Why is INS Arihant significant?**

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- The Arihant provides India with a capability to hit either neighbour (China, Pak) from 300 meters under the sea.

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- The sea-based missiles envisaged for this purpose are

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- i. the Sagarika with a range of 750 km

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- ii. the K-4 with a range of 3500 km

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- While land-based missile sites can be attacked and destroyed, a submarine-based deterrent is virtually secure against a missile attack.

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- India is the only country having a sea-based nuclear deterrent, which is not a Permanent Member of the UN Security Council.

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- India will soon operationalise a second nuclear submarine the “Arighat”.

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- It is expected to have a fleet of four such submarines by 2022.

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- According to US Federation of Nuclear Scientists, India currently possesses 130-140 nuclear weapons, Pakistan 140-150 and China 280.

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- While India tested its first nuclear weapons in 1998, Pakistan’s first weapons test was in 1990, on Chinese soil.

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# Deadly Deep Sea Hunter

## THE ARIHANT

Subma-  
rine to be  
a 6,000  
ton class  
boat

TWO MORE ARIHANT class submarines under construction

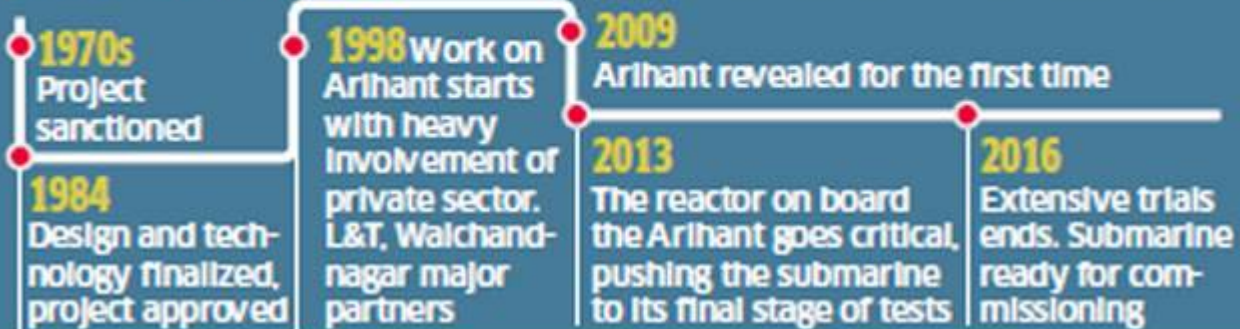
ARMED WITH 12 SHORT  
range K-15 missiles (700  
km) or four K-4 ballistic  
missiles (3,500 km)

CAN LAUNCH NUCLEAR weapons  
from underwater completing the  
nuclear triad – the ability to launch a  
nuclear strike from land, air or sea



Russian Navy vessel RFS Epron accompanying the Arihant on deep sea dives and launch tests

## THE LONG JOURNEY



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## What are the countries' nuclear principles?

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- **India** - India's nuclear doctrine stated that its nuclear weapons would only be used in retaliation.
- It could be against a major attack on Indian territory or on Indian forces anywhere, in which nuclear weapons are used.
- India also retains the right to use nuclear weapons in the event of major attacks in which chemical or biological weapons are used.
- **Pakistan** - Pakistan, on the other hand, does not have a formal nuclear doctrine.

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- However as stated before by its officials, Pakistan's nuclear weapons are "aimed solely at India".  
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- Accordingly, Pakistan would use nuclear weapons if India conquers a large part of its territory, or destroys a large part of its land and air forces.  
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- The possibility of nuclear weapons use if India tries to "economically strangle" Pakistan, or pushes it to political destabilisation also exists.  
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- Pakistan's statements in recent years have, however, indicated that it would not be averse to using tactical nuclear weapons in a conventional conflict with India.  
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- **China** - China, like India, had proclaimed that it would not be the first to use nuclear weapons.  
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- But China has maintained a measure of ambiguity on whether its "no first use" pledge will be applicable to India.  
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- China's deliberate maintenance of this ambiguity is seen as a signal of its support to Pakistan on any of its nuclear exchange with India.  
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- Chinese ambiguity only adds to India's determination to strengthen its "Triad" of land, air and sea-based nuclear weapons.  
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## What is China's role in Pakistan?

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- It is said that the Chinese did a massive training of Pakistani scientists.  
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- Without China's help, Pakistan's bomb would not exist.  
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- China has also provided Pakistan the designs of its nuclear weapons.  
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- It upgraded Pakistan's "inverters" for producing enriched uranium in Kahuta.  
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- It provided it with Plutonium reactors and separation facilities, for building

tactical nuclear weapons.

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- Pakistan's ballistic and Cruise Missiles are also replicas of Chinese missiles.

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## **What are the bureaucratic shortcomings in India?**

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- India has a well-organised nuclear command structure headed by the Prime Minister and Cabinet Committee on Security.
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- However, India needs to address serious issues on the archaic structure of the Ministry of Defence.
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- E.g. the key military figure in the Nuclear Command structure, the Chairman of the Joint Chiefs of Staff Committee, generally holds office for less than a year
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- This is hardly the time adequate to become fully familiar with the complexities of India's Strategic Nuclear Command.
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- There have been repeated proposals for appointment of a full time "Chief or Defence Staff", or "Chairman Chiefs of Staff Committee".
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- S/he will hold charge of the Nuclear "Strategic Forces Command" and report to the political authority.
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- But the proposals have gathered dust for years in the offices of the generalist bureaucracy of the Defence Ministry.
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- Recommendations for such change even from the Parliament Standing Committee of Defence lie unimplemented.

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- The present set up of the Defence Ministry thus needs to be drastically reorganised.

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**Source: BusinessLine**

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