

# Successful Training Launch of Short-Range Ballistic Missile 'Agni-1'

#### Source: PIB

#### Why in News?

Recently, training launch of <u>Short-Range Ballistic Missile 'Agni-1'</u> was carried out successfully from APJ Abdul Kalam Island, Odisha. The launch, **carried out under the aegis of the** <u>Strategic Forces</u> <u>Command</u>, successfully validated all operational and technical parameters.

### What is Ballistic Missile 'Agni-1'?

#### About:

- The Agni-1 is a Short-Range Ballistic Missile (SRBM) developed by India as part of its Agni series of missiles. It is the first missile in the Agni series and is designed to be a strategic weapon capable of carrying a nuclear payload.
- The Agni-1 is primarily intended for use as a deterrent against potential adversaries and is known for its quick response time.
- It is the first variant of the Agni series missiles under <u>Integrated Guided Missile</u> <u>Development Program (IGMDP).</u>
- Technical Specifications:
  - The Agni-1 is a single-stage, solid-fueled missile with a range of around 700 to around 1200 kilometers and can carry a payload of 1,000 kg, making it a shortrange ballistic missile. It has the capability to carry both conventional and nuclear warheads.
  - The **solid-fuel propulsion** system enhances its operational flexibility and reduces launch preparation time.
- Development and Testing:
  - The Agni-1 was developed by the <u>Defence Research and Development Organisation</u> (<u>DRDO</u>) in India. The missile has undergone several successful test launches to validate its performance and reliability.
  - **Agni-1 was first tested at the Interim Test Range in Chandipur in 1989**. The Indian army accepted Agni-1 in service in 2007.



## What are the Other Agni Class of Missiles?

The Agni series is a family of ballistic missiles developed by India, **with each variant designed for specific ranges and purposes.** Besides Agni-1, other notable missiles in the series include:

#### Range of other Agni Missiles:

- Agni II: Range more than 2000 km.
- Agni III: Range of more than 2,500 Km
- Agni IV: Range is more than 3,500 km and can fire from a road-mobile launcher.
- Agni-V: The longest of the Agni series, an Inter-Continental Ballistic Missile (ICBM) with a range of over 5,000 km.
- <u>Agni Prime</u>: A two-stage canisterised missile (under development) has been successfully flight tested in June 2023.
  - The missile is capable of delivering a number of warheads at separate locations at a distance of 1,000 2,000 km.

#### ICBMs:

- It is a type of **long-range ballistic missile** with the capability to travel vast distances, typically intercontinental ranges.
- They play a crucial role in a country's nuclear triad, which includes **land-based missiles**, submarine-launched missiles (SLBMs), and strategic bombers.
- ICBMs are characterized by their exceptionally long ranges, typically exceeding 5,500 kilometers (about 3,400 miles) and often reaching distances of over 10,000 kilometers (more than 6,200 miles).
- ICBMs follow a **ballistic trajectory**, meaning they are launched into space before reentering the Earth's atmosphere to strike their targets.

# UPSC Civil Services Examination, Previous Year Questions (PYQs)

# Q1. What is "Terminal High Altitude Area Defense (THAAD)", sometimes seen in the news? (2018)

- (a) An Israeli radar system
- (b) India's indigenous anti-missile programme
- (c) An American anti-missile system
- (d) A defence collaboration between Japan and South Korea.

#### Ans: (c)

#### Q2. With reference to Agni-IV Missile, which of the following statements is/are correct? (2014)

- 1. It is a surface-to-surface missile.
- 2. It is fuelled by liquid propellant only.
- 3. It can deliver one-tonne nuclear warheads about 7500 km away.

#### Select the correct answer using the code given below:

(a) 1 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

Ans: (a)

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