

Prithvi-II Missile

Why in News?

Recently, India carried out a **successful test launch of tactical ballistic missile Prithvi-II** from a test range off the Odisha coast.



What are the Key Highlights about Prithivi-II Missile?

- About:
 - Prithvi-II is an indigenously developed Surface-to-Surface Missile Short-Range Ballistic Missile (SRBM), which has a range of around 350km and can carry a one tonne payload.
 - Prithvi II class is a single-stage liquid-fueled missile that has warhead mounting capability of 500 kg-1000kg.
 - The missile is a proven system and is capable of striking targets with a very high degree of precision.
 - The state-of-the-art missile uses an advanced **inertial guidance system with manoeuvring trajectory** to hit its target.
 - It was initially developed for the <u>Indian Air Force</u> as its primary user and was later inducted into the <u>Indian Army</u> as well.
 - While the missile was inducted into India's Strategic Forces Command for the first time in 2003, it was the first missile developed under the IGMDP.
- Developed by:
 - <u>Defence Research and Development Organisation</u> (DRDO) of India under its <u>Integrated</u> <u>Guided Missile Development Programme</u> (IGMDP).

What are the Prithvi Missiles?

• The Prithvi missile system comprises various tactical **Surface-to-Surface Short-Range Ballistic**

Missiles (SRBM).

- Its development began in 1983, and it was India's first indigenous ballistic missile.
- It was first test-fired in 1988, from Sriharikota, SHAR Centre.
 - It has a range of from 150 to 300 km.
- The naval variant of Prithvi I and Prithvi III class missiles have the code-name Dhanush.

The propulsion technology was likely based on the Soviet SA-2 surface-to-air missile.

- Soviet SA-2 Surface-to-Air Missile:
 - Developed in the mid-1950s, the Soviet SA-2 surface-to-air missile was the first effective Soviet Union surface-to-air missile.
 - Developed as a missile for the battlefield, it could carry a nuclear warhead in its role as a tactical nuclear weapon.
- The Prithvi I missiles have been in service with the Indian Army since 1994.
 - Reportedly, <u>Prahar missiles</u> are replacing with Prithvi I missiles.
- Prithvi II missiles have been in service since 1996.
- Prithvi III having a more extended range of 350 km, was successfully test-fired in 2004.

UPSC Civil Services Examination, Previous Year Question(PYQ)

Q. 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)

Exp:

- Agni-IV is a nuclear-capable long-range ballistic missile of India, with a strike range of 4,000 km.
- The indigenously developed Agni-IV is a two-stage surface-to-surface missile. It is 20 metres long with a weight of 17 tonnes. Hence, statement 1 is correct.
- It is a two stage solid fuelled system that can carry a one-tonne nuclear warhead over a distance of 4,000 kilometres. Hence, statements 2 and 3 are not correct.
- Therefore, option (a) is the correct answer.

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