

The syllabus of UPSC Prelims examination is vast and diverse. The syllabus of UPSC Prelims exam for general subjects like History, Geography, Economics, Polity, General sciences and [CSAT](#) (aptitude) is well defined. The Current affairs segment which is undefined and dynamic is emerging as an inevitable part of the UPSC exam. In this context, candidates have to concentrate on both traditional and current affairs areas.

Defence is an important and dynamic segment in [UPSC Syllabus](#). The commission has asked several questions related to the missile launch, its type, etc. According to recent trends, UPSC tends to ask factual questions more than conceptual ones. This has put the candidates into a great pressure as they cannot predict the pattern of questions. To tackle the factual questions, it is essential to know about several facts and figures. Defence is an important area in UPSC Mains and Prelims examination.

To know more about other [Government exams](#), refer to the linked article.

### Category of Important Indian Missiles:

- Surface-To-Air Missiles
- Air-to-air missiles
- Surface-to-surface missiles
- Ballistic Missile Defence (BMD)/Interceptor Missiles
- Cruise Missiles
- Submarine Launched Ballistic Missiles
- Anti-Tank Missiles

The below table gives the list of important Missiles which are used by Indian Armed Forces or they are currently at different stages of development:

Air-to-air missiles	Name of the Missile	Type of Missile	Operational Range	Speed
	MICA	Air-to-Air Missiles	500 m to 80 km	Mach 4
	Astra Missile	Air-to-Air Missiles	80-110 km	Mach 4.5 +
	Novator K-100	Medium Range air-to-air missile	300–400 km	Mach 3.3

<b>Surface-To-Air Missiles</b>	Trishul	Short-Range surface to air missile	9 km	There were problems in this missile as it could not hit its targets. Hence, this programme was officially closed in 2008 by the Ministry of Defence (MoD). This missile was not inducted by the Indian Armed Forces. India, decided to import Barak Missiles from Israel.
	Akash Missile (There are 3 Variants at different stages of development - Akash-1S, Akash Mark-II, Akash-NG)	Medium-range surface-to-air missile	Akash -1S (18 - 30 Km) Akash Mk-II (35 - 40 Km) Akash-NG (More than 50 Km)	Mach 2.5 to 3.5
	Barak 8	Long-Range surface to air Missile	100 km	Mach 2
<b>Surface-to-surface Missiles</b>	Agni-I	Medium-range ballistic missile	700-1250 km	Mach 7.5
	Agni-II	Intermediate-range ballistic missile	2,000–3,000 km	Mach 12
	Agni-III	Intermediate-range ballistic missile	Around 3,000 km	5–6 km/s
	Agni-IV	Intermediate-range ballistic missile	Around 4,000 km	Mach 7
	Agni-V	Intercontinental ballistic missile	Around 5,000 km	Mach 24

	Prithvi I	Short-Range Ballistic Missile	150 km	-
	Prithvi II	Short-Range Ballistic Missile	350 km	-
	Dhanush	Short-Range Ballistic Missile	350 – 600 km	-
	Shaurya	Medium-Range Ballistic Missile	750 to 1,900 km	-
	Prahaar	Short-Range Ballistic Missile	150 km	-
<b>Cruise Missiles</b>	BrahMos	Supersonic cruise missile	290 km	Mach 2.8 to 3 Mach
	BrahMos II	Hypersonic cruise missile	450 - 600 km	Mach 7
	Nirbhay	Subsonic cruise missile	1,000 - 1500 km	Mach 0.8
<b>Ballistic Missile Defence (BMD) Systems / Interceptor Missiles</b>	Prithvi Air Defence (PAD)	Exo-atmospheric Anti-ballistic missile	Altitude - 80 km	Mach 5+
	Prithvi Defence Vehicle (PDV)	Exo-atmospheric Anti-ballistic missile	Altitude - 150 km	Mach 4.5
	Advanced Air Defence (AAD) /Ashwin Ballistic Missile Interceptor	Endoatmospheric Anti-ballistic missile	Altitude - 30 km	

<b>Submarine Launched Ballistic Missiles</b>	Sagarika (K-15)	Ballistic Missile	Around 750 Km	
	K-4	Ballistic Missile	Around 3,000 km	
	K-5	Ballistic Missile	Around 5,000 km	
<b>Anti-Tank Missile</b>	Amogha	Anti-Tank Guided Missile	2.8 km	
	Nag	Anti-Tank Guided Missile	500 m - 4 km	230 m/s
	Helina	Anti-Tank Guided Missile	7 - 10 km	

List of Missiles of India is an important static GK topic. For information on various [static GK topics](#) check the article linked here.

### Important Facts - Missiles in India

1. The Integrated Guided Missile Development Program (IGMDP) was launched in 1983.
2. This program was launched with an agenda to develop five missile systems in the country - Trishul, Akash, Nag, Prithvi, and Agni.
3. Tessy Thomas who is an Indian scientist and Director General of Aeronautical Systems and the former Project Director for Agni-IV missile in Defence Research and Development Organisation (DRDO) is known as the 'Missile Woman' of India.
4. Prithvi was the first Indian single staged liquid-fuelled surface-to-surface Missile.