

Defence Space Command Agency of Australia

For Prelims: Space Command Structures around the World, Defence Space Research Agency of India.

For Mains: Militarisation of Space, Need for space defence for India, Need for Multilateral binding agreement on Space use.

Why in News?

Recently, Australia has announced a new Defence Space Command Agency to counter the growing influence of Russia and China in space.

It will help Australia in developing and advocating space-specific priorities within the government, industry, allies and even international partners.

What will be the Function of the Defence Space Command Agency?

- The agency will provide training to people to become space specialists, help conduct strategic space planning, and be able to be a part of any developments regarding the refinement of space policy.
- Australia will be setting scientific and space priorities with the agency in place and will be working towards creating an efficient space architecture.
- All the operations of the agency including design, construction, maintenance will be within the purview of the standards and limitations of the Defence Ministry of Australia.

What are the Space Command Structures around the World?

- Spacecom US Space Force.
- Defence Space Agency (DSA) India
- Joint Space Command (France)
- Iranian Space Command (Islamic Revolutionary Guard Corps Aerospace Force)
- Russian Space Forces (Russian Aerospace Forces)
- United Kingdom Space Command (Royal Air Force)

What is the Concept of Militarization and Weaponization of Outer Space?

- The concept for space weaponization came up in the early 1980s through the "Strategic Defence Initiative" (SDI) also known as the "Star Wars" programme of the United States.
 - The idea was to put a large number of satellites into orbit that would detect the launch of enemy missiles and then shoot them down.
- Militarisation Vs Weaponization of Outer Space:
 - Weaponization refers to the placement in orbit of space-based devices that have destructive capacity.
 - Militarisation of outer space refers to the use of space in support of ground, sea and air-based military operations.

What is the Issue of Militarisation and Weaponization of Space?

- Global commons under threat: The Global Commons for Outer Space is under threat in the present times. Increasing militarization of outer space has started the race of weaponizing outer space.
 - For example, **Anti-SAT missiles** can destroy satellites in outer space.
- Threat to Global Communication System: Anti-satellite missiles can destroy the communication satellites which would bring down the communication system.
 - Uplink and downlink jamming of satellites would also negatively impact the communication.
- **Future Security Concerns:** There has been an increase in the number of nations with interest in Space, leading to power rivalries, and the consequent failure to make common ground on Space security to prevent its militarization and weaponization.
- **Earth is Our Only Home:** The ensuing arms race for weaponization of outer space would create an environment of uncertainty, suspicion, miscalculations, competition and aggressive deployment between nations, which may lead to war.
 - Space wars can be so disastrous that it may destroy our only home in the Known Universe
 Earth.

What is the Status of Outer Space Weaponization for India?

- India conducted a successful <u>anti-satellite test</u> in March 2019. The test placed India in the company of China, Russia, and the United States in terms of fielding a practical anti-satellite capability.
- In 2019, India also established two new bureaucracies for space, the Defense Space Research Organization (DSRO) and the Defense Space Agency (DSA).
 - DSRO is a research organization geared toward facilitating the development of civilian space technology for military purposes, while DSA plays a role similar to that of a combatant command in the United States, integrating space assets from the army, navy, and air force and formulating strategy.
- India conducted its first integrated space warfare exercise in July 2019, bringing together personnel from across the services. The exercise focused on using communications and reconnaissance satellites to integrate intelligence and fires across the range of Indian military assets, indicating a firm understanding of the necessity of access to space.
- Some within the Indian defense community have argued for more aggressive reforms, including the establishment of a military space service similar to the US Space Force.
 - This would facilitate the defense of India's growing satellite network, while also laying the groundwork for coercive action against enemy networks.

What are the Global Rules and Demands related to Space?

- Outer Space Treaty of 1967:
 - The treaty prohibits countries from placing into orbit around the Earth "any objects carrying nuclear weapons or any other kinds of weapons of mass destruction".
 - It also prohibits the stationing of such weapons on celestial bodies, like the moon, or in outer space. The moon and other celestial bodies shall be used by all state parties to the treaty exclusively for peaceful purposes.
 - **India is a party** to the Outer Space Treaty.
 - There are four more multilateral treaties that deal with specific concepts agreed to in the Outer Space Treaty:
 - The Rescue Agreement of 1968
 - The Space Liability Convention of 1972
 - The Registration Convention of 1976
 - The Moon Treaty of 1979
 - The United Nations Committee on the Peaceful Uses of Outer Space (COPUOS)
 oversees these treaties and other questions of space jurisdiction. None of these, however,
 prohibits the Anti-Sat missions of various countries.
- TCBMS: The international community has been debating the need to introduce Transparency and Confidence-Building Measures in outer space activities (TCBMS).

- In this regard, the **European Union (EU)** has also prepared a draft code of conduct (CoC). However, major powers are yet to agree on the idea of establishing a CoC conduct.
- PPWT: Another important idea that has been put on the table jointly by Russia and China is the Prevention of the Placement of Weapons in Outer Space (PPWT) instead of only Weapons of Mass Destruction which is resisted by the US and the EU.

Way Forward

- For the welfare of the entire mankind, it is imperative that the notion of **space as a global common is restored.**
- A centrally controlled governance system which ensures a responsible and safe ecosystem for space exploration and unhindered access to a peaceful space for our future generations is the need of the hour.

Source: IE

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