

## Sansad TV Perspective: Keeping Drones in Check

In the series Sansad TV Perspective, we bring you an analysis of the discussion featured on the insightful programme 'Perspective' on Sansad TV, on various important topics affecting India and also the world. This analysis will help you immensely for the [IAS exam](#), especially the mains exam, where a well-rounded understanding of topics is a prerequisite for writing answers that fetch good marks.

In this article, we feature the discussion on the topic: Keeping Drones in Check

Video link: <https://youtu.be/t-hKNBkPOUs>

Anchor: Vishal Dahiya

### Participants:

1. S.P. Shukla, President, SIDM
2. Sameer Joshi, CEO, New Space Research & Technologies Private Limited
3. R.K. Narang, Defense Policy Expert

### Context:

A considerable rise in the usage of drones across the globe has given rise to various adversities that impact a nation's security. This is raising security concerns in different parts of the world.

### Background:

Drones are used as potential weapons in terror attacks and there have been incidents of such attacks in the past that were driven by drones. India has also experienced drone activities along the western borders threatening the security of the region. Recently, three people including two Indians were killed in Abu Dhabi in a drone attack alleged to be carried out by the Houthi rebels of Yemen. As an immediate corrective action, the government of the UAE has ordered to stop all flying operations of private drones and light sports aircraft in the Gulf country for a month.

Read in detail about the [Yemeni Civil War](#) in the linked article.

### What are Drones?

- Drones are referred to as unmanned aerial vehicles that have multiple uses like military operations, package delivery, disaster management, mapping of terrains and location.
- Drones offered potential service in vaccine delivery to remote areas during the pandemic.
- Different drones are capable of travelling at varying heights and distances.

Drones	Travel Range
Very close range	3 miles
Close range	30 miles
Short range	90 miles

<b>Mid range</b>	<b>400 miles</b>
<b>Longest range</b>	<b>Up to 3000 feet in the air</b>

- Drones can be controlled remotely and they facilitate in searching for survivors during natural calamities.
- They act as vital tools for photographers.
- Drones function with the help of an Unmanned Aerial System (UAS) and possess fixed wings or multi-rotary build for flight.
- There is a ground control station that acts as the central control unit allowing the drones to fly and UAS to operate. These ground control stations can be user-controlled or operated through satellites. They are capable of controlling flight, controlling payload sensors, mission planning and tethering the data link system.
- Data links act as the transmission centre that assists in the communication of the drone with the ground operator using radio frequency technology.
- The US military made the first big demonstration of the military use of drones in the 1991 Gulf War to target its enemy forces.

#### **Drones becoming a tool of terror: An Overview**

- In a report titled 'The Role of Drones in Future Terrorist Attacks', it was mentioned that the Islamic State made the first successful use of drones for terrorism. This report was published by the Association of the United States Army (AUSA).
- Moreover, it was also reported that the drones were employed by terror groups to gather battlefield intelligence and to document the effects of suicide bombing. This report was put forth by the Middle East Media Research Institute.
- There were events wherein drones were used for carrying explosives. For instance, a toy aircraft exploded as the Kurdish fighters were examining it near the northern Iraqi city of Erbil.
- With the progress of time, drone attacks were regularly witnessed in the military operations in Iraq and Syria followed by other parts of the world.
- The Hezbollah (active rebel groups in Palestine and Lebanon), the Houthi rebels, the Taliban and other terror groups in Pakistan are known for the employment of drone based terrorism.

#### **Rising Threat for India:**

- The India and Pakistan relationship is accompanied by rising tensions involving border disputes over territorial sovereignty. Therefore, India is always subjected to continuous threats of cross border terrorism, drug trafficking and arms trafficking from Pakistan.
- Sighting of drones near the India-Pakistan border and the Line of Control has been frequent.
- In 2019, security personnel reported 167 sightings of drones from Pakistan.
- The Punjab Police had seized a drone dropped arms consignment to bust a terror module which was receiving supplies from Pakistan. The seizure included AK-47 rifles and pistols made from China.
- There were many drone-dropped arms consignments seized by the Indian police and security forces.

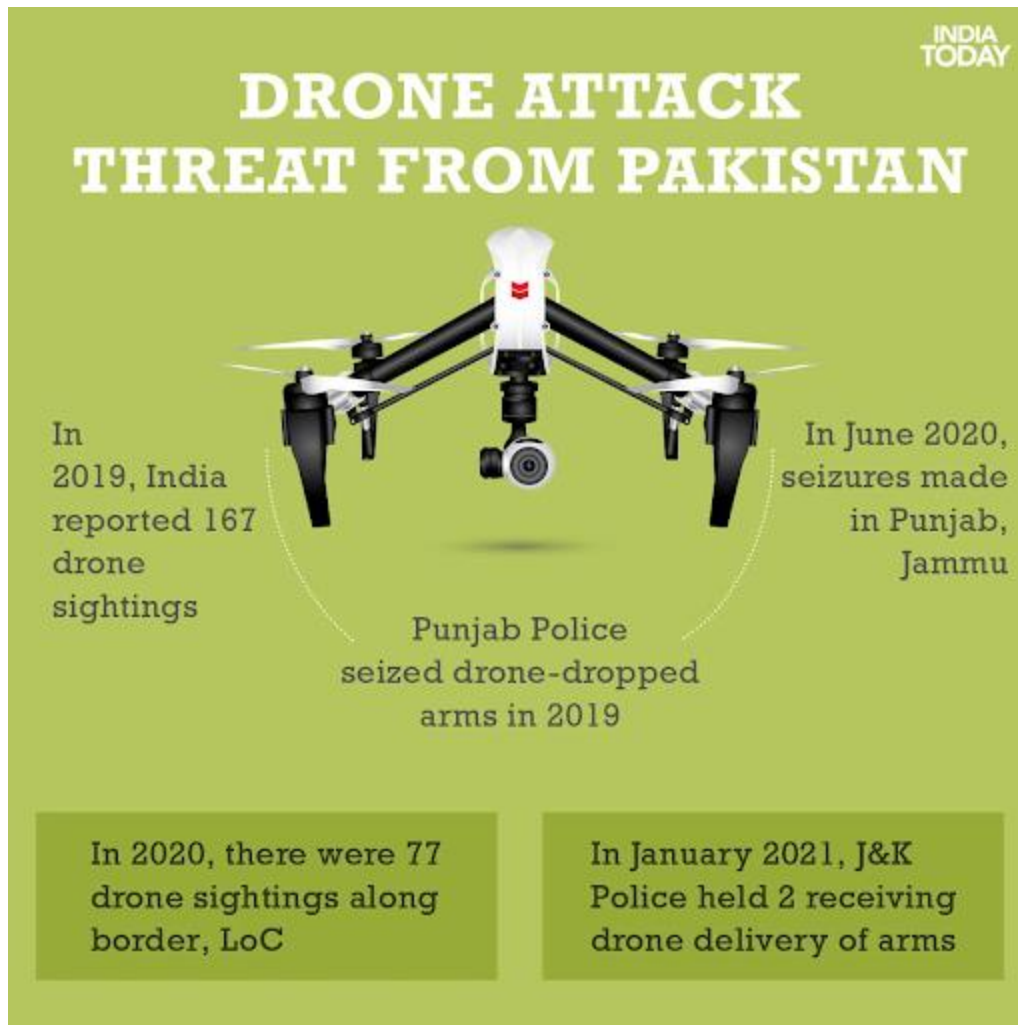


Image Source: [www.indiatoday.in](http://www.indiatoday.in)

### Intervention by DRDO:

- The [DRDO](#) has developed two anti-drone Laser-based Directed Energy Weapons (DEW) systems.
- These anti-drone systems can use powerful 10 kilowatt lasers to set aerial targets at a distance of 2 km.
- These weapons are awaiting their mass production.

### Ways Suggested to Prevent Drone Attacks:

- The small size of the drones creates a big challenge for the surveillance and radar systems in the border region of India that can only detect larger objects like helicopters, missiles and planes. There is a necessity of futuristic technology incorporation in order to develop and scale up the anti-drone systems.
- Regulations pertaining to the usage of drones must have a balanced approach in ensuring to protect its commercial viability at the same time mitigate the security challenges posed by it.
- In India, the [Drone Rules 2021](#) govern the operations of drones and the experts suggest that such regulations must show their effectiveness in checking that the drone usage does not fall in the wrong hands leading to its misuse.

- This was elaborated by a panelist with the example of smaller drones that are produced by China at a low cost and can do massive damage to the security. Our policies must regulate the entry of such drones in the Indian market and regulate its access to the wrong hands.

