

INDIAN PURSUIT OF ARMED DRONES: IMPLICATIONS AND CHALLENGES

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(Views expressed in the brief are those of the author, and do not represent those of ISSI)



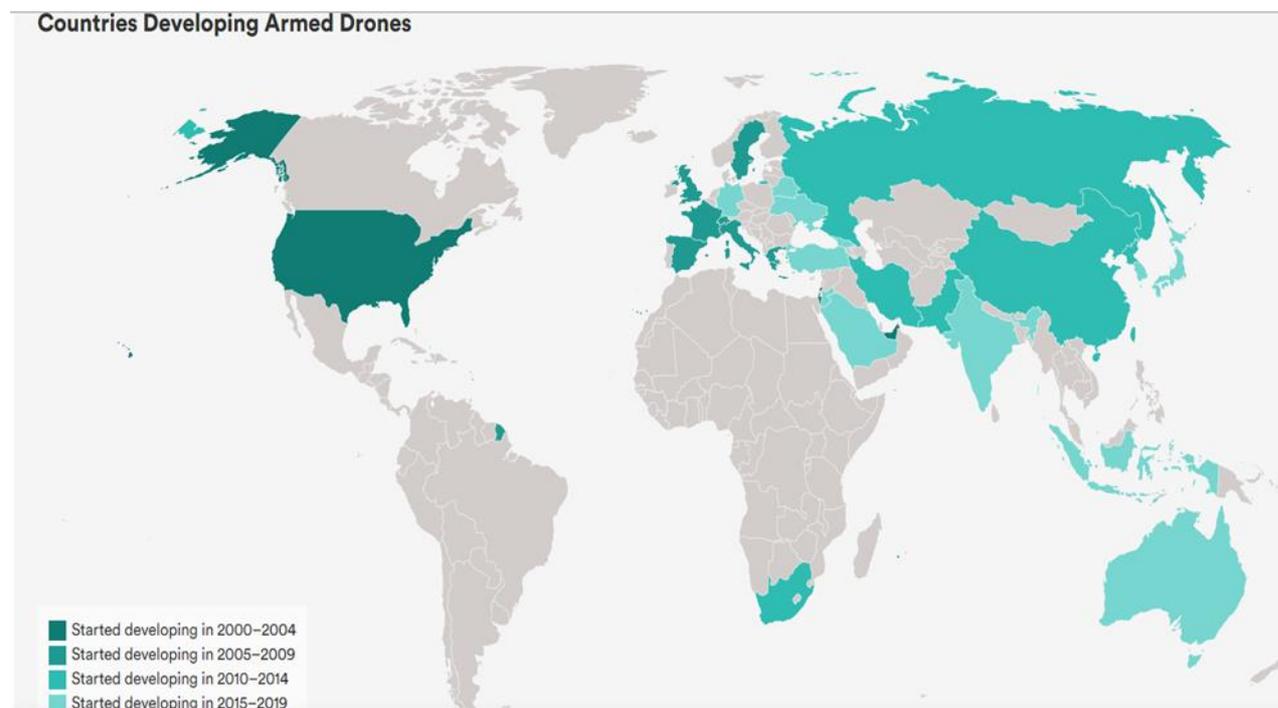
India is in advanced negotiations with the US to procure MQ-9B armed drones. It has also leased and used two drones from the US in the Indian Ocean Region. In addition, India is also developing its drones. Drones are a new genre of weapons that are increasingly used for reconnaissance, aerial surveillance, missile defence and also to strike targets. They are increasingly used in conventional warfare and reconnaissance. This is changing the contours of modern warfare where face-to-face combat may become obsolete. Indian development and acquisition of armed drones, once deployed against China and Pakistan would present several security challenges. It is, thus, important to examine what military drones India is pursuing and what security implications it has for the region.

What are Drones?

Many weapon systems bring evolutionary changes to the nature of warfare. Drones, or unmanned aerial vehicles, are weapons that are changing the face of war in the 21st century. They have been mostly used for reconnaissance, aerial surveillance, missile defence and hitting targets. They come in many shapes and sizes and vary in degree of sophistication. There are three basic types – strategic, operational and tactical. Strategic drones are used for long-range reconnaissance and missions. Examples are the Global Hawk which cruises at 20,000 meters above sea level for up to 40 hours. Operational drones include the Predator and Reaper systems that are capable of flying at an altitude

of 7,500 and 15,000 meters respectively and are deployed at the theatre level of combat. Tactical drones are typically low-altitude, short-range aircraft (20 miles or less) like the Dragon Eye system, which can be remotely piloted or pre-programmed to fly autonomously. Drones still have operators, who can be based thousands of km away from the battlefield. In the last decade or so, the role of drones has moved from counter-terrorism or counter-insurgency warfare into full-scale conventional combat. A new era of drone warfare beckons as technology becomes ever more sophisticated and linked to artificial intelligence. Drones may be completely automated in future. In essence, face-to-face combat may become obsolete. Drones have been used in operations and combat in recent years. They are currently being used in the Ukraine crisis by both sides.

The era of armed drone use has arrived. There has been a rapid proliferation of drone technology across the globe. More than 36 states have developed and acquired armed drones. The biggest producers and sellers of drones are the US and Israel, followed by Russia, China, India and Turkey.¹ Until recently, the US had sold drones only to NATO members. However, it approved the sale of drones to India in 2018.



Source: "Who has what: Countries with Armed Drones," <https://www.newamerica.org/international-security/reports/world-drones/who-has-what-countries-with-armed-drones/>.

¹ "Who has what: Countries with Armed Drones," <https://www.newamerica.org/international-security/reports/world-drones/who-has-what-countries-with-armed-drones/>.

India's Pursuit of Drones

India's negotiations with the US for the procurement of 30 MQ-9B Predator armed drones at the cost of \$3 billion² is expected to increase India's overall surveillance capabilities along its borders with China, Pakistan and the Indian Ocean. MQ-9B Predator drones are being procured for the three Indian services. Each service is likely to get 10 drones. They are medium-altitude long-endurance (MALE) hunter-killer drones that can carry out missions that include maritime surveillance, anti-submarine warfare and ground targets. The remotely piloted drones can remain airborne for around 35 hours and are designed for long endurance and high-altitude surveillance.³ They are armed with Hellfire missiles.

It is a version of the US combat drone, the MQ-9 Reaper, which has been in use around the world for support missions for the last decade. It has significant loiter time and precision weapons and is used for coordination, reconnaissance and striking against high-value targets. Reaper is also equipped with a synthetic aperture and can employ four laser-guided Air-to-Ground missiles.⁴ Reaper class of drones have been designed as hunter-killer, with a greater range than its predecessor and the ability to carry a larger weight of munitions.⁵

The US approved the sale of armed drones to India in 2019. At the time it even offered integrated air and missile defence systems. Recently, the deal for 30 MQ-9B Predator was discussed in April 2022 at the fourth two-plus-two Foreign and Defence Ministerial dialogue that took place between the US and India in Washington. Reportedly, talks are focused on issues related to cost components, weapons packages and technology sharing.

Indian Navy has already been using two MQ-9B Sea Guardian drones on lease from General Atomics since 2020 for surveillance in the Indian Ocean. In just the last six months the drones have flown 3,000 hours, covering 14 million square miles to support the Indian Navy's maritime and land border patrol objectives.⁶

² "India's \$3 billion Predator Drone Deal with US at Advanced Stage, certain issues being sorted out," *Times of India*, August 21, 2022, <https://timesofindia.indiatimes.com/india/indias-3-billion-predator-drone-deal-with-us-at-advanced-stages-certain-issues-being-sorted-out-report/articleshow/93689865.cms>.

³ Ibid.

⁴ "MQ-9 Reaper," <https://www.military.com/equipment/mq-9-reaper>.

⁵ Jonathan Marcus, "Combat drones: We are in a New Era of Warfare – here's why," *BBC News*, February 4, 2022

⁶ "India's \$3 Billion Predator Drones Deal With US in Advanced Stage: Report," Aug 21, 2022, <https://www.ndtv.com/india-news/indias-3-billion-predator-drones-deal-with-us-in-advanced-stage-report-3272753>.

India is already using many Israeli drones including the medium-altitude long-endurance Heron I, the Searcher MK II and the Harop loitering munition. In 2021, the Indian Army procured a set of new surveillance drones, an advanced version of Heron that has been deployed along the Line of Actual Control (LAC) in Eastern Ladakh.⁷

India has also been working on its indigenous drones as well. India's Defence Research and Development Organisation (DRDO) conducted the maiden flight of an unmanned 'autonomous flying wing technology demonstrator' in June 2022.⁸ The stealth wing flying test bed (SWiFT), is a smaller version of a remotely-piloted strike aircraft (RPSA). The DRDO is also working on Rustom II with intelligence, surveillance and reconnaissance (ISR) capabilities. The Indian Army launched a 'Him Drone-a-thon' programme in August 2022 in collaboration with the Drone Federation of India. This programme emphasizes the indigenisation of drones in line with the "Make in India" initiative in defence manufacturing. It is aimed at developing path-breaking drone capabilities for meeting the requirements of frontline troops. It aims to develop logistics drones in High Altitude Areas and autonomous surveillance, search & rescue drone, as well as the development of micro and nano drones for military purposes.⁹

Implications for Regional Security

Drones have had a significant role in changing the nature of warfare. Their role in warfare has been that of a force multiplier, which enhances the effectiveness of combat units by giving them ISR capabilities in the operating environment.

India's acquisition of Predator drones would give it an advantage in terms of reconnaissance along the border with China as well as its border with Pakistan. Indian Navy has already been using two leased MQ-9B Sea Guardian drones for surveillance in the Indian Ocean. With India's growing maritime ambitions and its role as a Western counter-balancer to China, it has been looking to bolster surveillance mechanisms to monitor Chinese activities in the Indian Ocean Region. Indian drone acquisition would give it over-the-horizon ISR support for surface units and Indian warships,

⁷ Manish Kumar Jha, "Indian Army Pushes for Indigenous Combat Drones; no-import UAVs Policy," *Financial Express*, Aug 10, 2022, <https://www.financialexpress.com/defence/indian-army-pushes-for-indigenous-combat-drones-no-import-uavs-policy/2622867/>.

⁸ "India takes initial step towards building stealth combat drones with maiden flight," *Times of India*, June 1, 2022, <https://timesofindia.indiatimes.com/india/india-takes-initial-step-towards-building-stealth-combat-drones-with-maiden-flight/articleshowprint/92605435.cms>

⁹ Manish Kumar Jha, "Indian Army pushes for indigenous combat drones; no-import UAVs policy," *Financial Express*, Aug 10, 2022, <https://www.financialexpress.com/defence/indian-army-pushes-for-indigenous-combat-drones-no-import-uavs-policy/2622867/>

as well as the exceptional endurance and operational availability of the platform. It will, thus, augment India's Naval strike and reconnaissance capabilities.

With India's increasing tendency towards surgical strikes into Pakistan, like the Post Pulwama strike of February 2019, the Predator drone could be the ideal weapon for such a strike. India can strike targets within Pakistan without any aircraft violating airspace. Thus, it presents yet another threat to Pakistan. One that Islamabad must take into account and be operationally prepared to counter.

India could also use armed drones in a battlefield scenario with Pakistan. It will not only give India ISR capabilities on a battlefield but also give it precision strike capabilities. With increasingly sophisticated drone technology, they are capable of jamming communication in the adversary's combat forces. Drones can be lethal to ground forces and act as force multipliers in air land or sea combat. Due to their small size, their ability to fly slower and lower to the ground means that many air defence systems are not designed to shoot them down. Another challenge is countering swarm drones, which are relatively low-cost and can be built in large numbers. Since India is also working on swarm drones, Pakistan must work on its countermeasures against drones. Many countries are already working on developing counter-drone measures. Drones will be a large part of future battlefields. Countries like Pakistan have to factor in the use of drones in future conflicts and must be prepared to defend against them.

Conclusion

Sophistication in drone technology has ushered in a new era of drone warfare. Dozens of countries around the world have drones today. In the international arena, their role has evolved from counter-terrorism or counter-insurgency warfare into use in full-scale conventional warfare. Drones will be part of modern battlefields as the third age of drone warfare beckons with increasingly sophisticated technology and linkage to artificial intelligence. Future drones may be fully automated.

India is pursuing and acquiring increasingly sophisticated armed drones that will have an impact on security in South Asia. India has already deployed drones in the Indian Ocean to bolster its ISR capabilities and Naval strike capabilities. Acquisition of Predator drones would also give an advantage in terms of reconnaissance along the border with China as well as its border with Pakistan. It would give India an advantage in a future battlefield scenario with Pakistan in terms of intelligence, reconnaissance and precision strike capabilities. It acts as a force multiplier. Pakistan must factor in the use of drones in future conflicts with India and must be prepared to defend against them.