

DRONES: THE NEW FRONTIER IN GEOPOLITICAL ARENA

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



The dynamics of battlefields have been revolutionized with the advent of highly sophisticated military drones. The last five years have witnessed four significant interstate wars: Libya, Syria, Nagorno-Karabakh, and the ongoing Ukraine conflict, in which drones have been decisive.¹ On February 2, 2024, the U.S. defense agency announced its approval for the sale of 31 MQ-9B predator-armed drones to India at an estimated cost of US\$3.99 billion. This aims to enhance India's surveillance capabilities, particularly along the LOC with China and Pakistan.² India is investing immense resources in the procurement of military drones to help secure its extra-regional security imperatives, and poses a threat to Pakistan. In this new era of drone warfare, Pakistan is also developing its indigenous drones to not be at a disadvantage in case of any conflict.

An Unmanned Aerial Vehicle (UAV) or drone is piloted remotely or on its own through software-controlled flight plans within its embedded systems. These flight plans are coordinated with the sensors onboard and a Global Positioning System (GPS). It uses aerodynamic forces to achieve

¹ Jason Lyall, "Drones are Destabilizing Global Politics: simple Vehicles make Conflict Tempting and Cheap," *Foreign Affairs*, July 13, 2023, <https://www.foreignaffairs.com/articles/middle-east/2020-12-16/drones-are-destabilizing-global-politics>.

² "US Approves sale of 31 Predator Drones to India," *The Economic Times*, February 2, 2024, <https://economictimes.indiatimes.com/news/defence/india-us-continue-to-hold-negotiations-on-predator-drone-deal/articleshow/107333012.cms?from=mdr>.

vehicle lift.³ UAVs gained prominence in the military realm as relatively cheap weapons with immense destabilizing potential in the 2010s.⁴ UAVs were designed to provide commanders with an aerial observation system in the combat zones to reduce the risk of casualties by providing reliable and real-time intelligence that was unattainable by aircraft and satellite systems.⁵ Drones were extensively used in the War on Terror. In addition to their initial Intelligence, Surveillance, and Reconnaissance (ISR) capabilities, drones are now being equipped with missiles to take on further tasks like counterinsurgency, force protection, infrastructure defense, and critical target assaults.⁶ Low-cost, technological sophistication, and easy employment are some characteristics that caused the proliferation of drones throughout the world for combat purposes.⁷

Drones have changed the character of warfare in the 21st century by making the battlefield more transparent. A Ukrainian military commander has recently stated that the conflict with Russia has reached a stalemate where no side can make a strategic breakthrough.⁸ UAVs are being used as an essential tactical tool in the Russia-Ukraine war, helping with artillery spotting, battlefield observation, and enemy vehicle attacks.⁹ The Development Strategy for Unmanned Aviation Until 2030, which was authorized by the Russian government on June 28, asserts that the country's state-owned enterprises and public institutions spent more than 13 billion rubles (more than US\$190 million) on UAV acquisitions between 2018 and 2022.¹⁰

Realizing the importance of armed drones in recent battlefields, several countries are advancing in the procurement and development of drones. UAVs are being used to carry out military missions throughout the world. The U.S. has a long history in the development and innovation of UAVs, its MQ-1 predator and MQ-9 reaper have been used in military operations worldwide.¹¹ The U.S. has

³ "Unmanned Aircraft Systems (Drones)," Harvard University, Radcliffe Institute for Advanced Study, <https://rmas.fad.harvard.edu/unmanned-aircraft-systems-drones>.

⁴ "Drones are Re-engineering the Geopolitics of the Middle East," Middle East Institute, <https://www.mei.edu/publications/drones-are-re-engineering-geopolitics-middle-east>.

⁵ "The Impact of Drones on Modern Warfare," *Politics Home*, February 25, 2020, <https://www.politicshome.com/thehouse/article/the-impact-of-drones-on-modern-warfare>.

⁶ Jason Sherman, "The Drone Wars," *Bulletin of the Atomic Scientists*, <https://www.tandfonline.com/journals/rbul20>.

⁷ Fuhrmann and M. C. Horowitz, "Droning on: Explaining the Proliferation of Unmanned Aerial Vehicles," *International Organization* 71, no. 2 (2017): 397-418.

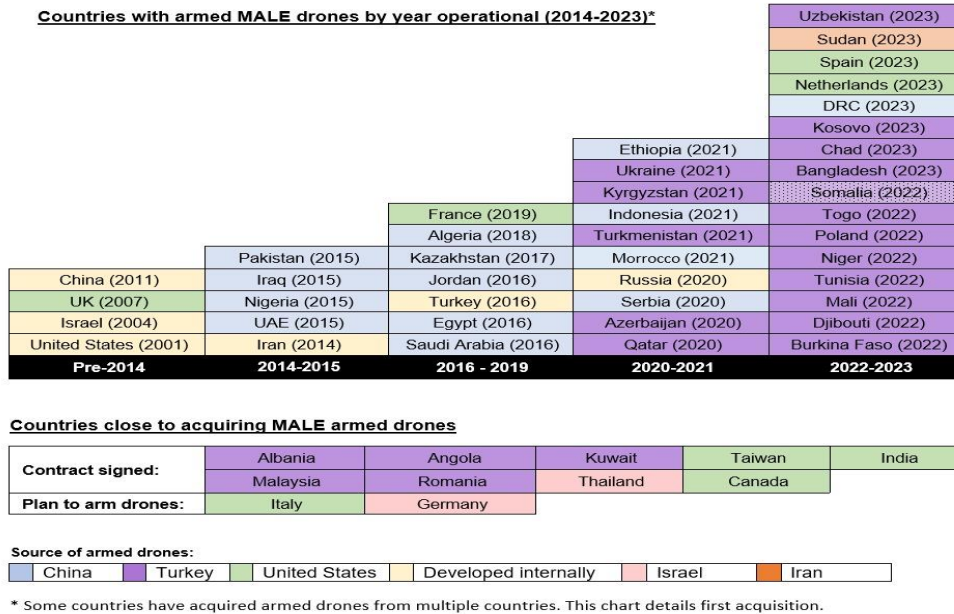
⁸ "Russia-Ukraine War: How an Army of Drones changed the Battlefield," *Foreign Policy*, December 8, 2023, <https://foreignpolicy.com/2023/12/06/ukraine-russia-war-drones-stalemate-frontline-counteroffensive-strategy/>

⁹ "Russia's Drone Industry hits Serious Turbulence," *Jamestown*, September 14, 2023, <https://jamestown.org/program/russias-drone-industry-hits-serious-turbulence/>.

¹⁰ Ibid.

¹¹ M. Durgut, "The Race for UAV Supremacy: Which Country Leads the Pack?," *Aviation Pioneers and Aviation Accidents*, November 22, 2023, <https://www.aviationfile.com/the-race-for-uav-supremacy-which-country-leads-the-pack/>.

resumed intelligence gathering and surveillance operations by flying drones in Niger recently.¹² Chinese UAVs, the CH-4 Rainbow and WJ-700 Pegasus are being recognized for their efficiency and low cost, indicating China’s rapid advancements in technological innovations.¹³ Israel and the UK are also actively involved in UAV production and development. Turkey has developed several extremely powerful UAVs, such as the Anka-3 and Bayraktar TB2.



Source: “Who has Armed Drones?” Drone Wars UK. February 13, 2024.

Turkish UAVs have become more common in conflicts all around the world, especially in the Middle East, because of their affordability and efficacy.¹⁴ Drone strikes gave Azerbaijan a significant advantage in the Second Nagorno-Karabakh War and provided proof of how unmanned armed drones being produced worldwide are changing battlefields. The strikes targeted Armenian and Nagorno-Karabakh soldiers and destroyed tanks, artillery, and air defense systems.¹⁵ The swift progress of Azerbaijan on the vital Lachin route, which connects Armenia and occupied Nagorno-Karabakh, is attributed to Turkish TB2 drones.¹⁶

¹² “U.S. Military resumes Drone, Crewed Aircraft Operations in post-coup Niger,” *Al Jazeera*, September 14, 2023, <https://www.aljazeera.com/news/2023/9/14/us-military-resumes-drone-crewed-aircraft-operations-in-post-coup-niger>.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ “Azerbaijan’s Drones Owned the Battlefield in Nagorno-Karabakh and showed Future of Warfare,” *Washington Post*, November 12, 2020, <https://www.washingtonpost.com/world/europe/nagorno-karabakh-drones>.

¹⁶ “Turkey’s TB2 Drones are Changing Modern Warfare,” *TRT World*, October 26, 2020, <https://www.trtworld.com/magazine/turkey-s-tb2-drones-are-changing-modern-warfare-40924>.

In the Libyan civil war, drones, particularly Turkish-made Bayraktar TB2 drones, have significantly influenced the course of the conflict by altering military strategies. Drones provided necessary support to the Government of National Accord (GNA) forces against the Libyan National Army (LNA) led by General Khalifa Haftar. With their precision strikes, real-time surveillance capabilities, and ability to target key LNA positions, the Bayraktar TB2 drones played a pivotal role in shifting the momentum of the conflict in favor of the GNA.¹⁷ Drones have become indispensable tools in the Syrian conflict, reshaping warfare and intensifying its complexities. They have influenced military strategies and tactics on the battlefield and played an instrumental part in significant clashes, such as the sieges of Aleppo and Raqqa.¹⁸ These conflicts reflect that drones have emerged as a game-changers, reshaping the dynamics of the battlefield.

Drones are enhancing border and maritime security by providing increased surveillance and reconnaissance. This has profoundly impacted the data collection method, increased situational awareness, and more effective information-gathering techniques in the battleground.¹⁹ Japan has deployed the U.S.-made highly sophisticated MQ-9B drone for the maritime surveillance of the Sea of Japan and the Pacific Ocean.²⁰ In contrast to fighter jets, drones are cost-friendly, therefore countries are investing heavily in procuring these technologies to enhance border and maritime security.

The race for procurement of military drones has already reached South Asia. India has long aspired to acquire long-range predator drones, equipped with both smart bombs and air-to-ground missiles. India is usually dependent on Israel for drone technology. India is heavily investing its military budget in acquiring drones and ammunition. Recently India has invested approximately US\$3.99 billion in the procurement of MQ-9B predator-armed drones from the U.S.²¹ These drones, armed with Hellfire missiles and smart bombs, are designed especially for long-range, high-altitude operations. They can be used to enhance India's surveillance capabilities in the Indian Ocean

¹⁷ Murat Sofuoglu, "How Turkish Drones are Changing the Course of the Libyan Civil War," *TRT World*, May 22, 2020, <https://www.trtworld.com/magazine/how-turkish-drones-are-changing-the-course-of-the-libyan-civil-war-36544>.

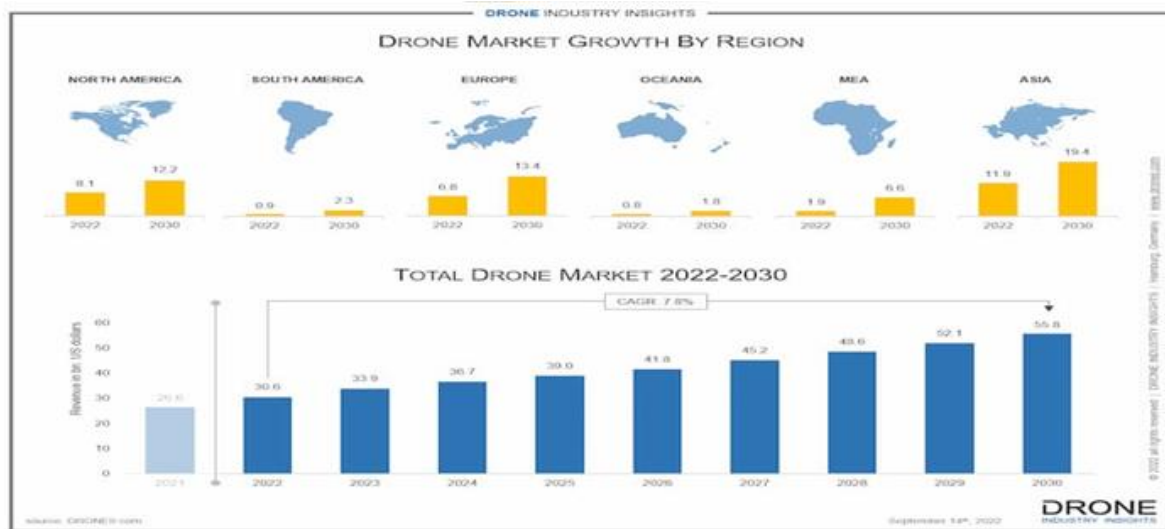
¹⁸ "How Syria became a Staging Ground for New Drone Wars," *Pax for Peace*, November 22, 2022, <https://paxforpeace.nl/news/how-syria-became-a-staging-ground-for-new-drone-wars/>.

¹⁹ The advantages of drones for military intelligence providing surveillance and reconnaissance.

²⁰ "Japan Puts Modern Drone into Operation to Enhance Maritime Security," *Dryad Global Channel*, October 31, 2022, <https://channel16.dryadglobal.com/japan-puts-modern-drone-into-operation-to-enhance-maritime-security>.

²¹ Vedant Saigal, "India's Prolonged wait for MQ-9B Drones ends," *South Asian Voices*, July 26, 2023, <https://southasianvoices.org/indias-prolonged-wait-for-mq-9b-drones-ends>.

Region.²² Four new Heron Mark-2 drones, which can stay for over 36 hours in the air and can carry out strikes and conduct surveillance along Pakistani and Chinese borders, have been added to the Indian Air Force.²³ The principal driving force behind these tactics is Prime Minister Modi's self-reliant India campaign.²⁴ Indian advancements in emerging technologies like UAVs are a major concern for Pakistan due to the mutual distrust between both states. This graph shows the global drone shipments by region from 2022 to 2030. According to this research, Asia is the fastest-growing market, with Europe and North America close behind.



Source: "Global Drone Delivery Estimated Market Size by Region 2023," Statista, May 2, 2023.

By 2013, the Pakistani military had indigenously developed surveillance-capable drones. The UAVs called 'Buraaq' and 'Shahpar' were the first locally developed surveillance drones. They were developed in cooperation with the National Engineering and Scientific Commission (NESCOM), a civil Pakistani scientific research organization.²⁵ Pakistan conducted its first air strike through a 'Buraaq' named drone armed with a Barq missile, killing 3 suspected militants in the Shawal valley of North Waziristan.²⁶ The capability of drones to efficiently counter the threat of terrorism gives them huge strategic utility. That is why Classical Realists with their statist conception of the world, view drones as a powerful tool for foreign policy.

²² Shankar, Ravi, "Strategic Shift: India's Armed Forces Set for Transformation with MQ-9B Drones," *Bharat Shakti*, February 5, 2024, <https://bharatshakti.in/strategic-shift-indias-armed-forces-set-for-transformation-with-mq-9b-drones>.

²³ "India Inducts new Heron Mark-2 Drones," *The Times of India*, August 13, 2023.

²⁴ Ibid.

²⁵ "Pakistan Successfully Tests first Indigenous Armed Drone," *Dawn*, March 13, 2015, <https://www.dawn.com/news/1169341/pakistan-successfully-tests-first-indigenous-armed-drone>.

²⁶ "Three killed in Military's First Drone Strike in North Waziristan," *Dawn*, September 7, 2015, <https://www.dawn.com/news/1205455/three-killed-in-militarys-first-drone-strike-in-north-waziristan>.

In this new era of drone warfare, Pakistan is developing its indigenous drones to not be at a disadvantage in case of any conflict. Pakistan launched its indigenous combat UAV, Shahpar-II, in 2021 and is currently under development.²⁷ This advancement highlights the increasingly important role drones are playing in the military realm and outside it. India's recent investment and advancements toward achieving highly sophisticated drones pose a threat to Pakistan. Pakistan has been collaborating with China and Turkey to advance cooperation in terms of drone acquisition for defensive purposes.

There is a need for increased investment in indigenous drone technology for developing precision-guided armed drones and upgrading existing air defense systems to counter hostile drone attacks.²⁸ Pakistan must work on the challenges that drone technology is facing in terms of security means such as the lack of investments. Contemporarily the significance of drones has increased extensively due to their role in the recent conflict of Nagorno-Karabakh, and the ongoing Ukraine conflict. The geopolitical arena is being shaped by drone proliferation in several states including India. Fortunately, Pakistan is not far behind in terms of technological capacity. However, to maintain its sovereignty and survivability, Pakistan must keep up with the trends of technological innovation like UAVs.

²⁷ Ghazala Yasmin Jalil, "Pakistan's Shahpar-II Drone: A Step Towards Indigenization," Institute of Strategic Studies Islamabad, December 21, 2022, https://issi.org.pk/wp-content/uploads/2022/12/IB_Ghazala_Dec_21_2022-1.pdf.

²⁸ Andrea Gilli, "Drone Warfare: an Evolution in Military Affairs," *NDC Policy Brief* 17-22.