

# CSSPR Policy Brief #3

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# REIMAGINING THE LOC

## UCAV & THE CHANGING CALCULUS OF COMBAT

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You don't see them. You hear them. That's how the residents of Nogoro Karabagh, the new hotspot between Azerbaijan and Armenia, described the drones that shot at them, killing targets and destroying buildings. The oil wealth Azerbaijan has amassed over the years, has been used to upgrade its arsenal and perhaps the single most important purchase has been that of armed drones from Israel and Turkey over the years. The most favored in this recent military standoff has been TB2.

Manufactured by Baykar Makina for the Turkish Armed Forces, [Bayraktar TB2 Tactical UAV](#) is a medium altitude and long-range (MALE) tactical unmanned aerial vehicle (UAV) system. TB2 is designed for short range reconnaissance and surveillance missions and can carry a payload of more than 55kg.

TB2 was used by Turkey aggressively in Syria and Libya this year and even though SAMs destroyed a significant number of incoming TB2s, [Turkish](#)

[drones](#) managed to “ravage enemy bases, artillery positions and vehicle columns unhindered with lightweight precision missiles.”

Pakistan is not late to the game. Starting its UAV program in the early 2000s, R&D efforts were led by Pakistan Aeronautical Complex (PAC) and Air Weapon Complex (AWC). At present, “the [backbone](#) of Pakistan's drone fleet comprises three UAV platforms: the Leonardo Falco, NESCOM Burraq, and GIDS Shahpar.”

Burraq's production began in 2009 and it is Pakistan's Unmanned Combat Aerial Vehicle (UCAV) with a range of 1000 km; Burraq carries two air-to-surface laser guided missiles which can hit both stationary and moving targets. Pakistan's first use of Burraq came in 2015 when it hit a [militant compound](#) in Shawal Valley in North Waziristan killing three terrorists.

**In 2017, Pakistan initiated 'Project Azm' to launch three aviation programs: fifth-generation fighter aircraft (FGFA), Medium Altitude and Long Endurance (MALE) UAV, and munitions.**

Despite availability of off-shelf solutions for MALE UAVs from China (Wing Loong series) or Turkey (TAI Anka), it is heartening to note that Pakistan's aviation industry is emphasizing on indigenization with possibilities of co-production and conditionality of transfer of technology in future with reliable regional defence partners like China and Turkey.

The latest [footage](#) released by the China Academy of Electronics and Information Technology (CAEIT) shows the launch of swarm suicide drones, each unit being just four feet long; weighing 20 pounds, it can be airborne for two hours and approaches target at the speed of 93 mph. China

launched these kamikaze drones from [truck-based](#), forty-eight-unit launchers and helicopters. In the battlefield, these suicide drone swarms can "confuse and [overwhelm](#) air defense systems by quickly being able to approach them from multiple angles."

In addition to China and Turkey, Iran too has highly developed, effective and active drone programs started in the 1980s. Iran continues to add armed drones to its fleet and is also one of the exporters of UCAVs. Iranian UCAVs include Shahed-129, Saegheh-2, Sadegh-1, Mojaher-6 and Qasef-1. Like Turkey, Iran has also used UCAVs in Syria against ISIS targets which speaks of Iran's ability to project force and showcase increasing military capabilities.

Hypersonic weapons, networked militaries, advanced sensors, technologies that can disrupt conventional and nuclear situational awareness, drone swarms, robotics, lasers, 5G/6G technology, quantum

computing, big data analytics, algorithmic warfare, network centric cyber attacks, autonomous surveillance and weapons systems all are contributing to the [changing nature of warfare](#) and have in fact revolutionized it.

However, UCAVs have their vulnerabilities due to lack of self-defence capabilities, interception or spoofing and jamming and their reliance on real-time remote control via satcom. While their evolution is underway to make them less vulnerable and more effective in an intense combat environment by removing these vulnerabilities, UCAVs are force multipliers providing states with offensive and defensive air power options.

In contested airspaces, UCAVs provide both the lethality and the survivability required for maintaining strategic stability, especially in our region where the Line of Control (LOC) is consistently on fire.

**Pakistan should benefit from the revolution in automation and slowly move away from manned platforms at the Line of Control towards unmanned, smarter platforms that are lighter and will provide it operational advantages.**

TB2, Anka or Burraq variants provide Pakistan a highly sophisticated, integrated system of Intelligence, Surveillance and Reconnaissance (ISR) for missions at the LOC.

**Pakistan needs to re-imagine the LOC when it will be controlled and surveilled by swarms of explosive drones. Our soldiers should be operating these drones instead of dying from bullets coming from across the LOC.**

*CSSPR Policy Brief Series is an initiative to inform the policy audience on issues of critical importance.*