DRONES IN OPERATION SINDOOR

India was forced to launch aerial strikes on nine terror camps in Pakistan in the early morning hours of 7 May 2025 in response to killing of 26 civilian tourists in Pahalgam, Jammu and Kashmir on 22 April 2025.

The operation was named "Op Sindoor" in the honour of women who had lost their husbands. Pakistani military and civil targets were consciously not targeted to prevent escalation. Pakistan, however; employed hundreds of drones en masse in probe and strike roles to strike 15 Indian air force bases and other civil-military installations along the entire Northern and Western border on the night of 7 May 2025.

This aerial contest continued till Director General of Military Operations (DGMO) of both India and Pakistan, agreed to pause operations on 10 May 2025. The suspension was violated by Pakistan barely a few hours later on the night 10 May. DGMOs again met on 12 May and it was decided to maintain pause in operations however, Op Sindoor has not yet been called off.

Pakistan, lacking parity in conventional air and military power resorted to employing six low cost warfare options comprising missiles, air launched standoff precision weapons, artillery; drones, terrorists and propaganda.

However, employment of drones had unique characteristics. Pakistan had CH-3 and CH-4 drones from China (Picture - 1) Akinci, Songar armed (Picture - 2) and Yiha-3 loitering drones from Turkey, FALCO from Italy, Luna-2000 from Germany (Picture - 3) Indigenous Shahpur-2, Shahpur-3 (Picture - 4) Uqab-2, Sarfirosh loitering drones and small drones from its private sector.

It employed mix of drones in large numbers along the entire northern and Western border to target civil and military targets. It also struck

Picture-1

CH-4-Drone bought from China by Pakistan used in Op Sindoor

Picture-3

Drone LUNA made in Germany was used by Pakistan

Picture-2

Gun-toting Drone named Songar bought from Turkey used by Pakistan in Op Sindoor

Picture-4

SHAHPAR Drone manufactured in Pakistan was also used extensively in Op Sindoor

some religious sites to create disharmony and spread **false rumors** about similar strikes by India, which were countered by India in its press briefings.

The four key characteristics of employment of drones in Op Sindoor are;-

a) Firstly, employment of drones for offensive operations by regular armed forces was witnessed for the first time in this region.

b) Secondly, Pakistan employed drones against Indian military and civil installations en masse in hundreds to draw out air defense systems and strike them.

c) Thirdly, India's layered air defense systems along the entire northern and western border were simultaneously tested against en masse drone attacks.

d) Fourthly, indigenously developed Akash, IGLA and other missiles; Drone Detect Deter and Destroy (D4) counter drone system and other counter drones systems with integrated air defense and counter drone systems effectively neutralized Pakistani drones.

India had many advanced fighters and in the unmanned segment, it had a mix of loitering, ISR, armed and drones in large numbers from Indian and foreign original equipment manufacturers.

India optimally employed manned-unmanned assets for various missions. It manned aircraft were used for launching standoff weapons and loitering drones for destroying targets deep inside the Pakistan territory.

The potential of manned aircraft was best displayed with the pin-point accuracy with which targets were struck deep inside Pakistan using air launched standoff weapons.

There was concerted effort to minimise the need for direct aerial confrontation over enemy territory since war had not been declared formally. This could be aimed at denying Pakistan any opportunity for propaganda associated with captured pilots as was experienced during the Kargil conflict. The feasibility of using Beyond Visual Line of Sight (BVLOS) missiles in a networked environment to counter the growing threat to fighters from long distances could also be considered.The loitering, armed; ISR, stealth drones and manned-unmanned teaming systems could be the preferred platforms in any future warfare.

The four day intense aerial contest between India and Pakistan during the Op Sindoor from 7 to 10 May 2025 was a glimpse of evolving nature of manned-unmanned warfare that this region could see in the times to come.

The Unmanned Aerial Vehicles (UAVs) or drones established themselves as essential elements of new age aerial warfare where they complemented manned aircraft while at the same time their employment en masse posed new challenges for air defense planners.

The interpolation of experiences of single front scenario of Operation Sindoor into future two and two half front scenario with drones would of interest to Indian planners.

ABOUT THE AUTHOR

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