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By Wong Yee Fay

SYNOPSIS

Ukraine has rapidly developed and scaled the use of AI-enabled, semi-autonomous intermediate-range strike drones, employing them to target Russian logistics convoys behind the front line. This class of strike drones could pose another significant challenge for military planners worldwide, as countering them requires new, complex and resource-intensive strategies.

COMMENTARY

Since late 2025, the Ukrainian Armed Forces' rapid development and large-scale deployment of intermediate-range strike drones to disrupt Russian military logistics in rear areas have begun to shift the initiative on the battlefield in favour of Ukraine.

These intermediate-range strike drones, such as the US-developed Hornet, are defined by the Ukrainians as one-way attack drones that have a range of 30-200 kilometres. They also use AI guidance systems to semi-autonomously home in on their targets, making them much more resistant to electronic-warfare countermeasures and jamming. Their significantly enhanced range and targeting capabilities compared with previous strike-drone models, coupled with low manufacturing costs in the thousands of dollars, have enabled Ukraine to deploy them en masse against logistical supply lines across Russian-controlled Southern and Eastern Ukraine.

These intermediate-range strike drones are having a noticeable impact on the front line. In May 2026 alone, there were 130 analyst-assessed intermediate-range strikes on Russian logistics vehicles across Southern and Eastern Ukraine, continuing an upward trend that began in January. This campaign has tilted the strategic picture of the war in Ukraine's favour in recent months. Russia recorded its first monthly

net territorial loss in Ukraine in years in May 2026, following several months of a slowing offensive pace that coincided with the ramping up of Ukraine's intermediate-range drone strike campaign.

This emerging battlefield dynamic unfolds against the backdrop of militaries worldwide already grappling with the tactical revolution brought about by short-range First Person View (FPV) strike drones – where the operator can see a live, real-time feed from a camera mounted on the drone. These drones have turned forward areas of the battlefield in Ukraine into static, highly visible and dangerous kill zones for both sides, upending decades-old military doctrines governing combined-arms manoeuvres by armoured and mechanised units to achieve rapid advances.

During the 2025 NATO Hedgehog exercises, Ukrainian drone operators, acting as the opposing force, successfully simulated the destruction of 17 NATO armoured vehicles, effectively neutralising two NATO battalions in a day. Just as the tactical FPVstrike drone revolution has done, there are compelling reasons to believe that intermediate-range strike drones will pose an even greater challenge for military planners worldwide.

Different Strategies Needed for Different Classes of Strike Drones

The first point is that the strategies currently being developed by militaries worldwide to respond to tactical FPV drones are unlikely to safeguard effectively against intermediate-range drone strikes. The battlefield in Ukraine has seen short-range FPV drone strikes with ranges of a few dozen kilometres against Russian army targets, almost entirely replacing the use of more costly and vulnerable attack helicopters and conventional airpower for strike roles. As such, frontline soldiers on both sides have become accustomed to mitigating the threat posed by FPV drone strikes. The widespread use of short-range air defences (SHORAD) by both sides against FPV drones is another example.

However, the deadly combination of longer ranges and relatively small sizes that intermediate-range strike drones possess could allow them to be launched at high altitudes, beyond the range of SHORAD fire. For instance, Ukrainian drone units have been experimenting with weather balloons to launch Hornet drones from high altitudes.

The low-cost and mass-producible nature of these drones could make intercepting them with more capable yet expensive high-altitude SAM systems an inefficient endeavour. Further innovations that continue this trend of deploying intermediate-range strike drones at high altitudes in a low-cost and efficient manner could exacerbate this challenge.

Resource-intensive Defence Needed

Another challenge is that it would be highly resource-intensive and even impractical to implement the next "best" strategy of equipping every logistics vehicle with its own anti-drone defences or Electronic Warfare (EW) countermeasure suites to reliably protect them from intermediate-range strike drones.

Before the widespread use of these drones, Russia was already struggling to defend its vast airspace and numerous strategic targets, such as airbases and oil refineries, against long-range strike drones used en masse by Ukraine. Now, with the growing proliferation of intermediate-range strike drones, Russia would need to secure logistics routes, such as highways, dozens of kilometres from the front, with constant anti-drone surveillance and mobile anti-drone fire teams. Installing anti-drone nets along the entire length of these routes is another option. However, either option would be extremely costly and time-consuming to implement.

Additionally, there have been reports of Russian and Ukrainian FPV drones attacking vehicles travelling beneath these anti-drone nets by exploiting holes or entry points. Loitering strike drones could also be further developed to carry equipment to cut these nets or to provide extended loitering or ambush capabilities to lock down a supply route. The ability of some Ukrainian intermediate-range strike drones to carry and drop mines to block highways in Russian-occupied Southern Ukraine has already been observed, prompting travel restrictions on a section of the R-280 highway in May 2026.

Logistics Lockdowns

A third challenge is that more straightforward anti-strike drone countermeasures, such as positioning logistics bases further from the front or dispersing logistics sites, might not prove effective in the long term. Even if logistics centres were moved farther back from the frontline, intermediate-range strike drones would still be able to loiter and target logistics convoys along long, lightly guarded stretches of key supply routes, preventing supplies from these sites from reaching frontline troops.

Problem Posed by AI-assisted Autonomous Drone Guidance

EW countermeasures have also been limited in their effectiveness against drones. As of mid-2026, the Russian military has been unable to develop its EW capabilities to keep pace with Ukraine's drone development, driven by the rise of AI-enabled autonomous guidance systems. This eliminates the need for a communications link between the drone and the operator, making the drone immune to EW jamming. It remains to be seen whether EW countermeasure development can keep pace with strike-drone innovation, but the past three years of increasing drone saturation along the Ukrainian frontline suggest a pessimistic track record for anti-drone EW.

A Hard Look Forward

As Ukraine's current intermediate-range drone strike campaign against Russian military logistics continues to escalate dramatically, militaries worldwide should take a hard look at whether their existing and planned anti-drone countermeasures would be capable of countering the rapidly developing threat posed by intermediate-range strike drones in the near future.

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