



Drones as Primary Weapons: Reshaping the Ukraine–Russia Battlefield

**HMSC Insight
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Summary

Combat drones have transitioned from auxiliary surveillance assets to primary battlefield weapons in the Ukraine–Russia conflict.

This Insight analyzes the tactical and strategic impact of platforms like the Bayraktar TB-2 and Shahed-136, the challenges they pose to conventional air defence systems, and the broader implications for future conflicts.

Strategic Intelligence Insight

I. The Emergence of Combat Drones as Primary Weapons

Exclusive interviews conducted by Middle East Eye, including input from HMSC Defence and Security Advisor Mr. Mamoun Abu Nowar, highlight the transformative role of drones in the Ukraine–Russia war.

Platforms such as the Turkish Bayraktar TB-2 and Iranian Shahed-136 have become essential offensive tools, fundamentally altering traditional combat tactics.

II. Tactical Advantages and Cost-Efficiency

- **Cost Asymmetry:**

The Shahed-136 drone, costing between \$20,000–\$30,000, imposes disproportionate defense costs, with interceptor missiles valued at approximately \$300,000 per strike.

- **Radar Evasion Capabilities:**

Built with carbon fiber composites, these drones possess low radar signatures, making them difficult for conventional air defense systems—designed for larger, faster targets—to detect and engage.

- **Flight Dynamics:**

Drones' slower speeds (up to 600 km/h) compared to traditional fighter jets (over 3,000 km/h) create targeting challenges for manned air forces.

III. Strategic and Operational Implications

- **Shift in Air Defence Priorities:**

Traditional anti-air systems calibrated for ballistic missiles and fighter jets are less effective against small, slow, low-flying drones, necessitating new defensive doctrines and sensor technologies.

- **Asymmetric Warfare Advantages:**

Low-cost drone swarms can overwhelm expensive, limited-capacity missile defence systems, democratizing air power for actors previously lacking advanced air forces.

- **Global Conflict Trends:**

Lessons from Ukraine will likely influence future military procurement, doctrine development, and asymmetric warfare strategies worldwide.

IV. Broader Battlefield Transformations

- **Erosion of Air Superiority:**

Even technologically advanced militaries must now account for inexpensive drone threats capable of degrading operational tempo and creating strategic dilemmas.

- **Detection and Response Gaps:**

Some states remain reliant on manual observation and alarms to detect drone incursions, underscoring vulnerabilities in current border and airspace monitoring systems.

Indicators to Monitor

- Proliferation of cost-effective drone systems to non-state actors and emerging militaries.
- Development of specialized counter-drone technologies (e.g., directed-energy weapons, electronic warfare).
- Changes in military doctrine prioritizing drone defence integration into layered air defence architectures.

Analyst Reflection

The integration of drones as primary combat tools in Ukraine signals a paradigm shift in warfare.

Affordability, stealth, and disruptive potential position unmanned aerial systems as pivotal factors in both state and non-state military strategies moving forward.