

Thinking Thematically

Drone attacks – and the evolving future of defense



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Overview

- Iran's drone/missile attack on Israel shows how rapidly new technologies are advancing the world of defense
- With new tools in cybersecurity, unmanned vehicles, and outer space, global powers need to plan for how to evolve to this changing landscape
- While government spending is adapting across the globe to face these new realities, defense investors could do well to look beyond traditional aerospace exposures

When considering the human toll of conflict, defense can be difficult to talk about these days. Our hearts continue to go out to all those suffering, especially the civilians being killed and injured by the struggles raging around them. Still, these topics remain important, particularly at a time when the dynamic of global defense seems to be shifting so quickly.

In April, after a good deal of tit-for-tat proxy attacks and posturing, Iran launched a direct attack on Israel. One of the key elements of the attack was a large fleet of drones. Along with cruise and ballistic missiles, Iran reportedly launched 170 drones.¹ While none of those drones made it to Israeli territory – the early telegraphing of the attack by Iran seemingly designed to ensure failure – it was a reminder of how warfare has changed dramatically since the Russian invasion of Ukraine. Today, we plan to dive into the ways technology is evolving, how it interacts with our new geopolitical reality, and what they can mean for the defense industry.

Asymmetry at scale

For the last hundred years, defense has been about the mass production of size. From the first tank to the dawn of the war plane, conflicts revolved around rapidly building new technologies – while simultaneously making them bigger, faster, and deadlier. This year, however, with conflicts roiling on multiple continents, technology seems to be inserting itself in geopolitics in a new way. Just look at Ukraine's attack by sea on January 31st. Using maritime drones, Ukraine managed to sink the Russian warship *Ivanovets*, a ship that had cost US\$70M to build.²

This is the power of asymmetric warfare, allowing combatants of varying sizes to strike in new ways, especially with vastly different budgets. Think about this statistic for a moment: for the price of the USS *Gerald R. Ford*, one of USA's newest aircraft carriers, you could buy 650,000 Shahed drones from Iran.² While advanced weapons will remain vital – especially in the ongoing “near peer” threats and competition between world powers – growing threats from drones (and other unmanned vehicles), cyber attacks, and space technologies prove the need for a diverse set of defense solutions.

Meanwhile, these new technologies are only set to grow. Ukraine has vowed to build one million drones this year, seeing them as a key element of their strategy in warding off Russia.³ However, Ukraine is also not alone in this push. For every drone in Ukraine, Russia reportedly has five to seven of their own.⁴ According to experts, the global drone industry could potentially triple by 2032, providing ample supply.⁵

Responding to drone attacks is also expensive and will require innovation. According to experts, Israel's response to the Iran attack could have cost upwards of US\$1.1B, using advanced weapons systems to take down the waves of drones and missiles.⁶ And what of artificial intelligence? If remote-controlled drones aren't dangerous enough, what happens when computers can begin to accurately field hundreds or thousands of them?²

1. CBS News, April 2024

2. Wall Street Journal, March 2024

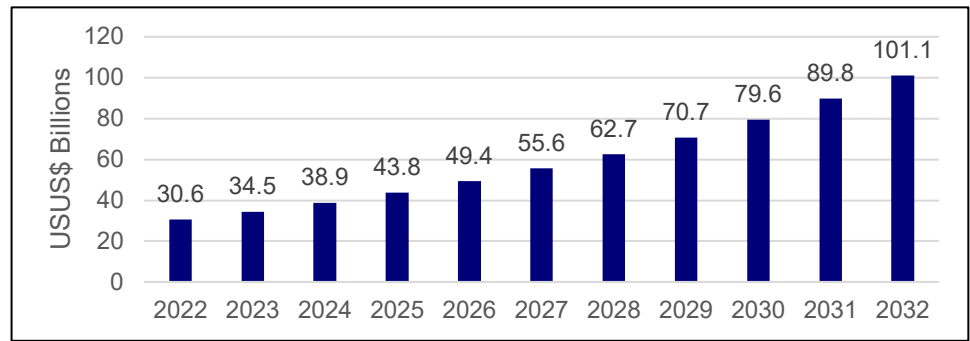
3. Reuters, December 2023

4. Business Insider, February 2024

5. GlobeNewswire, December 2023

6. Bloomberg, April 2024

Forecast Growth of the Drone Industry⁵



Source: GlobeNewswire, December 2023

How are governments responding?

With growing threats – and a changing global landscape – countries around the world do seem to be responding. In the US, for example, the FY 2025 budget prioritizes cutting edge technologies, allotting US\$14.5B for cyber threats, US\$1.8B for artificial intelligence (AI), US\$9.8B for advanced missiles, and US\$33.7B for space technologies.⁸ Outside the US, NATO members are also increasing investments, with 11% growth in real spending last year across European Allies and Canada.⁹ This year, 18 of the 31 NATO member states plan to hit their 2% of GDP spending target, up from just 4 in 2014.⁸ Asia is also seeing dramatic increases in spending, with China seeing its 29th year of defense spending increases and Taiwan passing its largest ever defense budget for 2024 at US\$19.1B.¹¹

While traditional weapons systems will remain relevant, governments will clearly need to rapidly deploy assets into non-traditional defense sectors. This year, the US Department of Defense laid out its vision to integrate AI and digital analytics across their command structures.¹⁰ The department is also reportedly researching human-AI interfaces as a way to speed up decision making. While the US has vowed to keep a human behind every use of force, the rapid development of AI – and varying degrees of usage by global adversaries – may well ramp up the cycle of new technologies.²

Where do we go from here?

The world is growing more complicated. After decades of stability and the “Pax Americana,” the steady loss of the global peace dividend could quickly require innovative solutions in the defense sector. Drone attacks provide just one example of an evolving landscape, leading us toward a time when battlefields expand from the physical into the digital. While plenty of uncertainty awaits us, we do think defense investors should be aware of these shifts and begin to look beyond purely traditional exposures. Even when history seems to repeat itself, new technologies could bring us to a world we hardly recognize.

8. SPADE, April 2024

9. NATO, February 2024

10. US Department of Defense, February 2024

11. IISS, February 2024

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