STATEMENT OF

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Chairman Gimenez, Ranking Member McIver, and Distinguished Members of the Subcommittee, thank you for the opportunity today to testify on how drone warfare abroad is transforming and informing domestic investments to prepare for threats here in the United States. I commend this committee's focus on these national security challenges along with your efforts to enhance the safety of U.S. transportation systems. The collaboration between Congress and industry is essential to keeping the American people and critical national infrastructure safe from today's rapidly evolving drone threats.

AV has a unique vantage point in this space as the top producer and supplier of Unmanned Aerial Systems (UAS) to the Department of Defense (DoD) coupled with our layered counter-UAS solutions deployed to multiple conflict zones abroad. This gives us a holistic view of the UAS threats, mitigation tools, and relevant implications for homeland security. The lessons we have learned from operations abroad underscore the urgent need to address this threat with greater speed and resolve to protect critical U.S. infrastructure and public safety including at high-visibility events like the 2026 FIFA World Cup, America's 250th birthday celebrations, and the 2028 Summer Olympics. In order to accomplish this goal, we believe it is vital that the U.S. Government and Industry have three key things in place: 1) a resolve to adopt lessons learned from real operational feedback; 2) flexible sources of funding to modify or scale up the production and delivery of new, software defined platforms that can be updated in response to evolving threats, and 3) the necessary authorities to allow federal and state government users to employ technology solutions in what we know are complex jurisdictional scenarios.

Threats and evolving environment

As a former soldier who benefited from DoD's nascent UAS arsenal over two decades ago, I commend this panel for bringing awareness to the American people regarding the proliferation of UAS technology - particularly how its capability, lethality, availability, and quantity, when combined, can enable malign actors to threaten unprotected infrastructure and lives.

Looking abroad, Ukraine's recent "Operation Spider's Web" against Russia's strategic bomber infrastructure demonstrated the precision, reach, and destructive ability of small UAS. Spider's Web highlighted the rapid evolution of small drone system capabilities at an affordable cost. The reports of covert Ukrainian launches from inside Russia emphasize the need for agile, real-time government and industry collaboration to develop detection systems and interdiction tools here at home. Municipal, state, and federal agencies need to adequately prepare for unmanned and increasingly autonomous systems in their public safety and security strategies.

More recently, in June 2025, during a 12-day conflict with Iran, Israel coordinated a drone and missile campaign targeting Iranian air defenses, ballistic missile platforms, and command infrastructure. While Israeli fighter jets visibly degraded Iran's missile sites and attacked military personnel, Israeli drones, pre-positioned quadcopters, and internet-connected launch platforms operated from within Iran, showcasing this new frontier of drone warfare.

The implications for the defense of our homeland is significant. The use of drones built from commercial parts and operated with minimal infrastructure is increasingly plausible by proxy networks or lone actors on domestic soil. Techniques like drone swarming, GPS jamming, and antiradar flights, perfected abroad, could be adapted to threaten critical U.S. infrastructure.

In the maritime environment, UAS pose a significant threat to shipping in vital trade chokepoints. From 2023 to 2024, there were over 50 UAS incidents in the Red Sea, many involving direct attacks or surveillance of commercial vessels. The increasing frequency and sophistication of these drone operations, by state and non-state actors alike, highlight the urgent need for improved countermeasures to protect critical maritime infrastructure.

Closer to home, unidentified aerial objects have reportedly entered U.S. airspace off the East Coast and have raised national security concerns. From 2021 to 2024, over 30 incidents were reported, with objects demonstrating advanced maneuverability and speed. These incursions underscore the critical need for advanced detection and mitigation technologies to protect key maritime regions and ensure U.S. airspace security.

Activities at the Southern Border continue to pose a direct threat to our homeland, as transnational criminal organizations, gangs, and extremist organizations adopt UAS to aid in their transport of illicit material into the U.S. The defense industrial base is poised to work with Congress and our executive branch counterparts to ensure we are prepared for UAS incursions and possible attacks through our own borders.

Many of your industry partners recognize these threats and are developing robust countermeasures today. Although these investments are taking place, many challenges remain–requiring Congressional, Federal Executive, plus State, local, and municipal action.

Challenges

Traditional defense acquisition processes are inadequate to deliver the capabilities necessary to outpace the fast-evolving UAS threat. We can no longer afford multi-year requirements development followed by lengthy science and technology experimentation

cycles. Government and industry must work together to develop and field new agile counter-UAS programs, and pair these programs with key authorities designed to protect critical infrastructure.

Effective solutions require affordable, open, and adaptable technologies rather than high-cost, proprietary systems. Operational clarity and streamlined authorities are essential for establishing guidelines for UAS detection and defeat within domestic airspace. Government and industry partnership will benefit all parties, maximizing innovative and delivering cost-effective solutions.

Solutions must be tailored to meet the unique demands of countering UAS threats. To succeed, we need acquisition reform—but we also need operational clarity. Homeland security stakeholders must work together to establish operational directives that define authorities for UAS detection, identification, and defeat in domestic airspace and enable responsible action under clearly defined legal and safety parameters.

The rapid increase in UAS lethality—as demonstrated in the Ukraine conflict, where drones now cause the majority of casualties—serves as a stark warning. Our traditional defenses and authorities have not kept pace, and we must act swiftly to prevent similar threats against our infrastructure and population.

Opportunities

U.S.-based defense innovators are developing promising systems to detect, track, and defeat UAS threats. Soft-kill techniques, such as jamming or radio frequency (RF) manipulation, have dominated this space in the past five years. In an effort to combat these defensive tactics, adversaries increasingly employ drones guided by fiber optics, preprogrammed autonomy, various frequency bands, or cellular signals. A few systems, like ours at AV, have capabilities against GPS. The existing authorities make it difficult to utilize these advanced technologies, so we are expanding our ability to counter peer threat capable systems. In parallel, we must continue the development of hard-kill solutions—systems that physically destroy or disable drones.

As has been heard in testimony before other House committees, the President's budget requests critically needed investments in drone technologies and policy changes to improve acquisition and production of drone systems, at scale. The government is poised to be able to take advantage of fast-moving private sector innovation to field low-cost, attritable, kinetic and non-kinetic UAS and counter-UAS systems.

Detection technologies, directed energy (laser) and kinetic defeat capabilities offer a promising path forward. The U.S. Army, for example, has demonstrated the effectiveness of high energy laser systems deliver hard-kill effects with minimal collateral damage. When combined with acoustic sensors, passive radar, and software-defined radio receivers, this creates an integrated drone shield that can be safely deployed in mixed civilian environments focused today on small and medium-sized UAS at close range. Kinetic alternatives, like the Army's Next Generation Counter-UAS Missile, complement directed energy solutions, allowing affordable defense at greater range, elevation, and weather scenarios, though the employment of these systems would be limited in accordance with the sensitivity of the protected infrastructure and public safety requirements. Kinetic solutions are more effective against large UAS, which have been used extensively in Ukraine and the Middle East. These offerings provide alternatives to the unsustainable practice currently employed of shooting down low-cost drones with multi-million-dollar weapons systems, which are expended upon use and difficult to replace.

These technologies are ready, but they require strong demand signals, enabling policies, and streamlined authorities to mature and scale. Without decisive action, the U.S. risks trailing our adversaries' rapid innovations. We need expanded authorities for UAS defeat operations inside US borders, clear operational doctrines, and funding structures that reward responsiveness. With additional authorities and funding, the defense industrial base can meet the needs of the country. Affordable, attritable platforms at mass are transforming the way in which we fight and are rapidly evolving in a way that necessitates we take advantage of solutions available today, both custom and commercial. We commend the DoD's continued efforts to eliminate overly bureaucratic processes and fund the fielding of systems across all domains.

AV, alongside other forward-leaning, innovative U.S. companies, stands ready to meet this challenge. However, policy inertia and acquisition drag–not technology–remain our most significant obstacles. It is encouraging to see agencies like DoD, DHS, and members of Congress and committees like yours begin to take steps to rectify the issues we face today. All parties understand that we must act now to prevent foreign battlefield experiences from becoming domestic tragedies.

Thank you again for the opportunity to testify. I look forward to your questions.