

## U.S. Commander Warns AI Drone Defenses Must Strike Without Delay

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Future artificial intelligence (AI)-powered air defense systems must be able to detect and respond to threats instantly, without waiting for human approval, a top defense official warns.

Speaking at the Space and Missile Defense Symposium in Huntsville, Alabama, Lt. Gen. Sean Gainey, the head of the U.S. Missile Defense

Agency, has warned that emerging threats, such as mass drone swarms and fast-moving missiles, require autonomous systems that can “act first and ask later.”

He stressed that these autonomous capabilities will be critical as adversaries like Iran and Russia increasingly deploy low-cost, high-volume drone attacks. Traditional intercept methods, which often rely on expensive missiles, are not economically sustainable in the face of such tactics. Instead, AI must drive faster, more efficient decision-making to counter threats in real time.

Future air defense systems, Gainey added, will also need to integrate data from radars, satellites, and sensors, and independently determine the best response, whether a kinetic interceptor or an electronic warfare technique. These split-second decisions, he noted, cannot wait for human confirmation during high-speed, complex attacks.

The Defense Department has already begun shifting toward this vision. Initiatives such as the Replicator and Replicator 2 programs aim to mass-produce autonomous drones and improve defenses against them. The Pentagon has requested hundreds of millions of dollars for AI-enabled tactical autonomy, including systems designed for aerial, land, and undersea operations.

The U.S. Air Force’s Collaborative Combat Aircraft (CCA) program is also a key part of this push. It is developing unmanned drones that operate alongside piloted jets, coordinated through AI systems trained for mission adaptability and target prioritization.

While the strategic need for autonomy is growing, ethical concerns remain. Critics argue that delegating lethal decisions to machines risks blurring accountability. Gainey acknowledged the debate but maintained that operational demands are driving a new reality. He warned that delaying action in high-risk scenarios could cost lives and allow critical assets to be destroyed.