

PROJECT BOAR BASE OVERSIGHT OF AUTONOMOUS RESPONSE

KEY BENEFITS

Integration of small, unmanned aircraft systems (sUAS) into wing missions will:

- Improve effectiveness
- Increase efficiency
- Maintain and improve resilience

WHAT IS IT?

Project BOAR is a system designed to control multiple, unmanned vehicles of all kinds, encompassing land, air, sea and undersea from a centralized command and control station. These vehicles are called UxVs. BOAR will enable central control and monitoring of UxV operations such as emergency response, building inspections, threat detection and more. Project BOAR is a combined effort between Wright Patterson Air Force Base's 88th Air Base Wing (ABW) and the Air Force Research Laboratory (AFRL) to revolutionize infrastructure, processes, and policies to enable reliable, safe, and effective human-machine-teamed small, unmanned aircraft systems (sUAS) operations. The machines execute low-level tasks, allowing the human to control and task multiple machines simultaneously and deliver integrated capabilities as enterprise solutions to DOD installation operations, emergency management, and Agile Combat Employment contexts.



U.S. Air Force Brig. Gen. Derek Salmi, left, discusses Project BOAR with Staff Sgt. Juan Cortes, right, during a demonstration at Travis Air Force Base, California (U.S. Air Force photo by Kenneth Abbate)



Senior Airman Clayton Hotaling, 60th Security Forces Squadron, observes the video feed of a drone during a Project BOAR demonstration at Travis Air Force Base, California. (U.S. Air Force photo by Kenneth Abbate)

RECENT UPDATES

Project BOAR is actively teaming with Air Mobility Command and Air Force Materiel Command bases to create an enterprise solution for sUAS operations on U.S. Air Force installations. The Project BOAR team completed its first integration event during the 2023 USAF Marathon. Several technologies were integrated to operate sUAS during the event to provide situation awareness to the Marathon incident command (IC) center.

The integration event was successfully operated with zero incidents. Project BOAR conducted a roof, facility envelope, and aircraft inspection as well as providing situation awareness to the Marathon IC, all while supporting four real-world taskings, including the identification of an unknown sUAS flying along the Marathon route. The initial BOAR capability demonstrated at the AF Marathon is being considered as the foundational multi-sUAS beyond visual line of site control technology suite by the 88 ABW (WPAFB), the 60th Air Mobility Wing (Travis AFB), and the 6th Air Refueling Wing (MacDill). Project BOAR also completed a demonstration during the Travis Air Force Base Wings Over Solano air show in 2024. The team combined drone video and static video systems into the BOAR system, creating a common operating picture. The team is working to further integrate the technologies while incorporating other sUAS into the BOAR environment.