

AIR FORCE UNMANNED AERIAL VEHICLE BATTLELAB



LINEAGE

STATIONS

Eglin AFB, FL
Creech AFB, NV

ASSIGNMENTS

COMMANDERS

HONORS

Service Streamers

Campaign Streamers

Armed Forces Expeditionary Streamers

Decorations

EMBLEM

EMBLEM SIGNIFICANCE

MOTTO

NICKNAME

OPERATIONS

The Unmanned Aerial Vehicle Battle Lab is a small focused, activity center whose mission is to rapidly identify and prove the worth of innovative UAV operational and logistical concepts which improve the ability of the Air Force to execute its Core Competencies (Air and Space Superiority, Global Attack, Precision Engagement, Information Superiority, Rapid Global Mobility, and Agile Combat Support) in support of Joint Vision 2020 and Joint Warfighting. The Unmanned Aerial Vehicle Battle Lab pursues high payoff initiatives with the goal of accomplishing them with minimal cost and investment, to impact current Air Force UAV organizations, doctrine, training, and future requirements and acquisitions. Unmanned Aerial Vehicle Battle Lab initiatives have demonstrated numerous enhancements to combat capability such as: 1) Decreasing the time required for UAV products to reach decision-makers; 2) improving the precision of target coordinates derived from UAV sensors; 3) Integrating UAVs with other airborne ISR assets; 4) Enhancing the ability of UAVs to operate in civil airspace; 5) Providing radio relay for range extension; 6) Improving friendly force combat identification and illumination of enemy ground targets for fighter attack.

The UAV Battlelab Intelligence, Surveillance, and Reconnaissance (ISR) Division analyzes existing and emerging technologies for integration into Joint UAV systems with effects-based emphasis on ISR operations, to include radar, video, laser designation and other ISR systems. The division manages evolutionary and revolutionary initiatives demonstrating enhanced UAV ISR capabilities. Each initiative is focused on moving successfully demonstrated technology from the battlelab to the warfighter. Finally, the ISR Division serves as an Advisory group to ACC and Air Staff on UAV ISR issues.

The UAV Battlelab Combat Applications Division analyzes existing and emerging technologies for integration into Joint UAV systems with effects-based emphasis on kill chain operations, to include weaponization, sensor delivery, and electronic warfare (EW) systems. With this in mind, the division manages evolutionary and revolutionary initiatives to demonstrate enhanced UAV attack and targeting capabilities. Incorporated in to the initiative plan is a detailed roadmap to move successful initiatives from the battlelab to acquisition or operational status. These initiatives are then transitioned to UAVs in a combat environment in support of the warfighter. Additionally,

the Combat Applications Division serves as an Advisory group to ACC and Air Staff on UAV weapon-related issues.

The Integration Division analyzes existing and emerging technologies for integration into Joint UAV systems with emphasis on service and joint applicability. With this in mind, the division manages evolutionary and revolutionary initiatives to demonstrate enhanced UAV capabilities. Incorporated into the initiative plan is a detailed roadmap to move successful initiatives from the battlelab to acquisition or operational status. These initiatives are then transitioned to UAVs in support of compelling warfighter needs. Finally, the Integration Division serves as an Advisory group to ACC and Air Staff on joint or service UAV-related issues.

The Unmanned Aerial Vehicle Battle Lab consists of 25 military and civilian personnel, augmented with temporary duty experts or contractor support. The Unmanned Aerial Vehicle Battle Lab is aligned under Air Combat Command's Air Warfare Center at Nellis AFB, NV. The Air Warfare Center is an intermediate headquarters for 4 wings and 24 detachments. It conducts the USAF's most advanced weapons and tactics training, including Red Flag and the USAF Weapons School. It also conducts operational testing and tactics development and evaluation for combat weapons systems, as well as supports combat search and rescue and unmanned aerial vehicle reconnaissance operations worldwide.

2004 Indian Springs Air Force Auxiliary Field near here is entering a new era in providing unmanned aerial vehicle support to the combat air force. Currently the only installation with a fleet of operational remotely piloted aircraft, Indian Springs is now also the home of the Air Force's Unmanned Aerial Vehicle Battlelab. "Battlelabs find problems, identify solutions and transition them to the warfighter," said Col. Larry Felder, who commands the unit and also assisted with developing the Air Force's original battlelab concept. "Once potential solutions are found, we conduct objective demonstrations to see if the technology, concept, tactics or procedures will actually work and transition the solution to our warfighters," Colonel Felder said. He believes Indian Springs is an ideal location for the battlelab. "Indian Springs is a great place to take UAV Battlelab initiatives into the next decade," Colonel Felder said. "We had numerous successes while the battlelab was at Eglin, but the sphere of strategic UAV activity is on the West Coast. Besides the Predators at Indian Springs, Global Hawks will soon be at Beale AFB, Calif., and the unmanned combat aerial vehicle is being developed at the Flight Test Center at Edwards AFB, Calif., the colonel said. "We also have a great relationship with the Navy which is doing its own UAV development in the west at Naval Air Weapons Station China Lake (Calif.) and Naval Air Station Fallon (Nev.)," he said. "In addition, there is intelligence gathering for UAVs at Beale and our air reserve component is assisting with analysis in Reno, (Nev.)" Even though the battlelab core is on the West Coast, small UAV activities will still be staying at Eglin. The battlelab will continue to improve the Air Force's ability to execute the mission and support joint warfighting initiatives, said the colonel. "We're currently going through a buildup process," Colonel Felder said. "We have moved the majority of the organization across country and are building a new team. The key to our immediate future success will be our operating location at Eglin. (Besides) managing our small UAV program, Eglin is the seed corn of knowledge and will be integral to training the new people out here." Besides subject-matter experts at Eglin, the battlelab relies on liaisons outside the organization for assistance. "With the help of six liaisons from the Air Force

Research Laboratory, Electronics Systems Center and reserve components, our battlelab has the ability to reach back into the Air Force lab system, reach forward into the acquisition system to move technologies from one system to another and look at the mission from a total-force perspective,” Colonel Fedner said. Initially aligned under the Air Warfare Center’s 53rd Wing, control of the battlelab transferred to the Aerospace Command and Control and Intelligence, Surveillance and Reconnaissance Center at Langley Air Force Base, Va., on March 1, 1999. Control of the battlelab returned to the Air Warfare Center in April 2002 as the UAV mission evolved to include weapons delivery, forward-air control and surface attack. Since its inception, battlelab initiatives have decreased the time it takes for UAV products to reach decision makers. Officials have also been able to improve UAV target precision coordinates from sensors and enhance integration with other airborne intelligence, surveillance and reconnaissance assets. Battlelab officials have also enhanced the UAV’s ability to operate in civil airspace, improved friendly force combat identification and illuminated enemy ground targets for attack.



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