



Safety Center RPA Branch

Who we are & how we help you!

Systems Safety Engineering

The Air Force Safety Center Remotely Piloted Aircraft Branch at Kirtland Air Force Base, N.M., has a proactive view on aviation safety to prevent future mishaps. One of the key elements for achieving this goal is employing systems safety.

AFSEC has two systems safety engineers (SSEs) whose primary responsibility is supporting the integration of RPAs across the Air Force into the National Airspace System. Further, the SSEs provide professional systems safety oversight in the development of RPA safety cases for Ground Based Sense and Avoid (GBSAA) and airworthiness (AW) risk assessments for Air Force RPA platforms. Both analyses are critical for allowing RPAs the ability to operate in the NAS without visual observers or chase aircraft.

SSEs developed the inaugural Air Force GBSAA safety case at Cannon AFB, N.M., which met FAA and AW requirements for the MQ-1 and MQ-9 to safely fly in the NAS. The success from this project increased training capabilities for RPA aircrews and saved significant

funds since the need for visual observers or chase aircraft was no longer needed. SSEs also act as representatives for AFSEC to support AW safety operations. One of these studies included demonstrations for the Coyote RPA system, which launches an RPA midair from a manned aircraft! Currently, the SSEs assist with GBSAA systems development at five locations across the Department of Defense as well as airborne sense-and-avoid (ABSAA) research, which provides safety capabilities for midair collision avoidance.

One challenge for NAS integration is standardizing the safety case development and processes across the DoD. The Air Force, Army, and Navy tend to develop their own safety case for each GBSAA NAS integration. AFSEC's SSEs aid with solving the challenge by providing cross-talk throughout the DoD and promote standardization. Another challenge is the lack of FAA regulation for RPA operations in the NAS. Once again, SSEs serve as AFSEC's resident experts to achieve collaborative safe practices with military and non-military entities.

AFSEC's SSEs have extensive experience and skills in the areas of FAA/DoD AW certification, safety assessments applying both general aviation standards as well as military standards. For questions regarding safety case processes and safety case development contact the SSEs at HQAFSC.SEFQ@us.af.mil or call (505) 846-0303, DSN: 246-0303 or (505) 846-1182, DSN: 246-1182.