



Interagency Aviation Lessons Learned

**No. IA LL 26-05****September 9, 2026****Page 1 of 2****Subject: Airspace Conflict****Area of Concern: Shared Situational Awareness Between UAS and Crewed Aircraft****Distribution: All Aviation Operations**

Discussion: Wildland fire aviation relies on constant coordination between UAS, helicopters, fixed-wing aircraft, ATGS, and Air Operations personnel. Because conditions change quickly, everyone must share a common, up-to-date understanding of where aircraft are and what they're doing. This event shows that good communication alone isn't enough—crews need a truly shared picture of the operation to maintain safe separation.

Event Summary

On July 23, 2026, a UAS operating in Division C of the Aspen Acres Fire and Helicopter N173BH conducting reconnaissance came into unexpected proximity due to differing understandings of UAS aircraft status and altitude. Communication challenges caused by terrain, evolving mission details, and assumptions led the ATGS to believe the UAS was on the ground as the helicopter entered the area. Unmanned Romeo 32 (UR32) received an ADS-B alert and visually identified the helicopter cresting a ridgeline within its operating area. The UAS crew immediately contacted the helicopter, provided instructions to maintain separation, and coordinated with ATGS to reestablish a shared understanding. Vertical separation was about 600 feet and lateral separation about 675 feet. The situation concluded safely through prompt communication and professional decision-making by both crews.

Lessons Learned

Shared Mental Model

Mission briefings must create a shared understanding—not just exchange information. Everyone should leave with the same picture of operating areas, altitudes, aircraft status, mission objectives, and expected flight paths. As conditions change, that shared mental model must be checked and updated.

Positive Verification

When entering or operating near a UAS working area, decisions should be based on confirmed, current aircraft status—not assumptions about whether a UAS is on the ground or airborne.

Communication Discipline

Standardized radio procedures and closed-loop confirmation reduce uncertainty. Sending information is only half the job; verifying that it was correctly understood is equally important.

Professionalism Under Pressure

Both crews showed strong situational awareness and coordination. The UAS crew identified the developing hazard immediately and took appropriate action. The helicopter crew coordinated before entering the division and responded quickly once the conflict was recognized. Their professionalism prevented a more serious incident.

Technology Supports, It Does Not Replace

Traffic-awareness tools provided helpful alerts but did not resolve the conflict. Safe separation ultimately depended on human judgment, radio communication, and deliberate coordination.

What Went Well

1. Effective pre-mission coordination despite terrain challenges
2. UAS crew promptly adjusted based on ATGS direction
3. Helicopter crew proactively coordinated before entering UAS-active airspace
4. Technology added an additional layer of awareness
5. Immediate radio communication enabled safe deconfliction
6. Both crews remained calm and professional
7. Incident documentation will support future improvements

Key Takeaway

The goal is not flawless communication—it is shared situational awareness. Briefings and radio calls should reinforce a common operating picture that evolves with the mission. In this event, all parties communicated, yet the shared understanding still diverged. This underscores a critical point: communication alone does not guarantee alignment.

As altitudes shift, missions change, and aircraft move across divisions, everyone in the Fire Traffic Area plays a role in maintaining that common picture. Trust the information you receive—but verify it. Positive checks and disciplined coordination protect the safety margins that keep both UAS and crewed aircraft separated.

Trust, but verify. The greatest enemy of effective communication is the illusion of it.

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