



Interagency Aviation Safety Alert



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Subject: Mid-Air Collision Avoidance

Area of Concern: All Aviation Operations

Distribution: All Aviation Users including: Fixed-Wing Flight Managers, Helicopter Managers, Air Attack Group Supervisors, and Unit Aviation Officers

Discussion: Investigation of several recent near mid-air collisions revealed failures in communications, situational awareness, and deviation from standard operating procedures. Review of this season's SAFECOMs also reveals similar conditions in several other incidents. It is incumbent upon all aviators to remain highly alert whenever you are operating in complex Fire Traffic Areas (FTA) with other aircraft. "See-and-avoid" is our first line of defense against a mid-air collision. Clear and concise communication, and compliance with the Aerial Supervisor's directions are necessary in order to maintain control of complex situations.

When it is necessary to use a "virtual fence" to separate fixed-wing from helicopter traffic, be sure to thoroughly brief ALL AIRCRAFT on the incident, as well as all relieving Aerial Supervisors to avoid confusion and loss of coordination. Be aware that the period of transition from one supervisor to the next is a weakness in the process that offers additional risk for the loss of situational awareness.

The following review of a recent Incident With Potential is provided in its entirety as a lesson learned from a near-miss scenario.

While suppressing a wildland fire in California, a type 1 helicopter and an ASM platform came within 200 yards of each other, requiring each to maneuver to increase their separation. The outgoing air attack had just completed a transition briefing to the incoming air attack on the briefing frequency 136.2. The ASM (ASM 1) had control of all helicopters and at the same time was using a qualified ATGS to gain first-time experience in the ASM platform. ASM 1 was in the process of conducting a transition briefing to its replacement platform (ASM 2) after 3 hours of controlling airtankers and helicopters in the area. This second transition was being conducted on the fixed wing frequency 122.925 while the ATGS on ASM 1 maintained helicopter control on 123.175 (rotor wing frequency). A "fence" was established along a ridge line at the west side of the complex where helicopters were to stay to the east during airtanker operations and airtankers were to stay to the west. There was a mission for the helicopters to build line from the fence, down canyon to support ground crews and connect the line into drops previously made in the lower canyon. This involved maneuvering near the fence to line up, and the helicopters were doing this between airtanker drops and show me runs. Helitanker H- B recognized the fence line and made their approaches from the northeast.

The helicopter pilot of H-A may have believed he was cleared to cross the line because they were working between the airtanker drops. After believing he was cleared into the airspace, helicopter H-A took position as number 3 in a 3-ship daisy chain to lay retardant down the canyon after the last airtanker completed its drop. The ASM 1 crew said they made a radio call on 123.175 to broadcast intentions to make a show me run for ASM 2 along the ridge line, to identify the desired retardant line. Neither helicopter pilot recalls hearing that radio call, however there was a lot of radio traffic at that time. ASM 1 flew over H-1 helispot and along the ridge crossing the helispot area at about 150 ft AGL. The ASM 1 pilot saw the helicopter off his left wing as it was making a nose up maneuver. ASM 1 responded by making a climbing turn to the right to open the distance. The helicopter was heard to say words like, “what is the lead plane doing here?” ASM 2 also witnessed one of the two helicopters flying down the canyon to the right of ASM 1.

Comments made in interviews:

- “I have had 4 situations with traffic deviations in the FTA in the last month” – ASM 1 pilot
- One of the helicopter pilots felt there was so much happening and so much radio chatter and confusion he almost returned to base to shut down. – H-B pilot
- ASM 1 crew insists they did not clear anyone to cross the fence.
- The pilot of H- A insisted he was cleared to maneuver in that area for a drop.
- “Shift changes are a watch out” - ATGS

Findings:

- This occurred during simultaneous transitions of 2 ASMs and 2 ATGS.
- There were two controlling ships in the area, the one controlling helicopters involved a qualified ATGS, however his first time in an ASM aircraft.
- There were lots of radio communications happening during the 3-hour operation.
- Both Air Attacks stated that neither of them cleared the Helitankers to cross the fence.
- The two aircraft operated so close to the “fence” there was overlap.

Conclusion:

Two aircraft operating along the fence line needed close coordination. These aircraft were operating in an area of elevated risk while conducting a transition, creating enough distraction to lose awareness of the helicopter activity.

Recommendations:

- Avoid transitioning both controlling aircraft at the same time.
- Recognize hazards of operations along the virtual fence line and ensure clearances are issued and acknowledged prior to operating in or around the virtual fence.

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