Lessons Learned

Subject: Near Mid-Air During Fire Suppression Operations

Area of Concern: Coordination / Communications During Fire Suppression Activities

Distribution: All Aviation Users

Discussion: A near mid-air occurred between a single-engine air tanker (SEAT) and a helicopter during fire suppression operations. The helicopter was one of two helicopters working the fire in support of ground operations and was configured with a bucket attached to a 100-foot longline. The SEAT was one of three fixed wing single-engine air tankers in support of fire suppression operations. Both aircraft were under the control of, and had radio contact with, an Aerial Supervisor (ATGS). Shortly after the transition between Aerial Supervisors, the SEAT involved in the near mid-air arrived on scene. In order to provide horizontal separation between the helicopters and SEAT operations, the Aerial Supervisor instructed the helicopters to hold at their respective dipsites but inadvertently used the same callsign for both helicopters. As a result, the helicopter involved in the near mid-air did not hold at its dipsite, but continued operations in support of his helitack crew, assuming that SEAT operations were west of his working area. When the SEAT pilot arrived on scene, he saw both helicopters depart the fire for their respective dipsites. When he heard the call for the helicopters to hold, he thought the line was clear. The Aerial Supervisor, thinking that both helicopters were holding and that the line was clear, cleared the SEAT for the drop. There were no ground personnel in the drop area. The SEAT pilot dropped the retardant and, after flying through some smoke on his exit, encountered the helicopter. A helitack supervisor on the ground saw the SEAT approaching and called to the helicopter pilot to warn him. The helicopter pilot started an immediate right turn. At the same moment, the SEAT pilot saw the helicopter and also turned to the right. Separation was estimated at approximately 200 feet horizontally and 50 feet vertically.

LESSONS LEARNED: Since After Action Reviews (AAR) are most effective when conducted soon after an event, an AAR was conducted the next day with all those involved. The following Lessons Learned came from that AAR and are appropriate for all fire operations:

1. During transition periods, Aerial Supervisors, pilots, and/or Incident Commanders should consider slowing operational tempo to allow time to develop adequate situational awareness. Mistakes and confusion occur more frequently during transition periods.
2. Helicopter pilots should continue to make blind calls of “off the dip” and “off the drop” in order to help maintain the situational awareness of the Aerial Supervisor and other pilots in the area.
LESSONS LEARNED (con’t):
3. If the intent of the Aerial Supervisor is to have all helicopters in a Division or the whole fire hold at the dipsite or a virtual fence boundary for tanker operations, the Aerial Supervisor should consider using a global instruction such as, “all helicopters hold and confirm” and then get read back confirmation from each helicopter before clearing tanker drops.
4. Aerial Supervisors and incident pilots should be aware of approach/exit routes as they relate to other incident aircraft operations. Knowing these routes helps all pilots determine safe aircraft horizontal and vertical separation, especially in limited visibility from smoke or terrain.
5. Ground supervisors in the operational area of aerial assets need to know the operational plan of those assets. They are an important part of the safety system for aerial operations and are encouraged to make calls to aerial supervisors and/or pilots to inform them of potential airspace conflicts and ground personnel locations.


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