



Interagency Aviation Lessons Learned



No. IALL 09-01

January 9, 2009

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Subject: Aircraft Accident Lessons Learned

Area of Concern: All Aviation Activities

Distribution: All Aviation Users

Discussion: On August 27, 2008, an AT-802 Single Engine Air Tanker crashed during fire suppression operations in Colorado. The accident occurred when the pilot was maneuvering the aircraft for the second retardant drop of the flight. During the first retardant drop, the pilot's door came open causing the pilot to stop the release of retardant. When the pilot relayed to the ATGS that he had a problem with his door, the ATGS, having seen the abbreviated drop, assumed that the pilot was referring to the retardant gate. On more than one occasion, the ATGS asked the status of the pilot and aircraft. At no time did the ATGS understand that the problem was with the pilot's door and not the retardant gate. At no time did the mishap pilot fully convey the nature of the problem to the ATGS. When the mishap pilot requested to jettison the remaining retardant, the ATGS assumed that the problem had been corrected and asked the pilot to reinforce the previous drop. The mishap pilot agreed to the request.

On the second drop, the mishap pilot used an aggressive turn at low altitude to align the aircraft for the run-in heading. The heading was directly overhead ground firefighting personnel. As a result of the aggressive maneuver, the aircraft entered an approach turn or cross control stall (FAA-H-8083-3). The mishap pilot failed to recognize the impending stall before departure and loss of control. As a result, the aircraft impacted the terrain.

The aircraft crashed in close proximity to six ground firefighters and three vehicles. The firefighters were unharmed, but two of the three vehicles sustained minor shrapnel damage. Although the aircraft was totally destroyed, the pilot received only minor injuries.





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LESSONS LEARNED: After a thorough investigation and analysis of the accident, the following lessons learned are provided for future mishap prevention purposes.

Communication. Communication is the exchange and flow of information and ideas from one person to another. It involves a sender transmitting an idea to a receiver. Effective communication occurs only if the receiver understands the exact information or idea that the sender intended to transmit. In this accident, the pilot never fully conveyed the nature of his problem, which led the ATGS to “assume” that the problem was with the retardant gate. During high tempo operations, there are numerous barriers to communication; noise, stress, and the environment are just a few. These barriers must be overcome to ensure effective communication.

Every year, there are numerous SAFECOMs that concern communication. Rather, the lack of effective communication as a result of hardware, software, or liveware. Communication is the cornerstone to successful mission accomplishment.

Professionalism. Failure to use a checklist resulted in the pilot’s door coming open. Failure to execute proper emergency procedures during a stall resulted in departure from controlled flight and loss of aircraft. Aggressive low altitude maneuvering and overflying ground personnel is not professional flying, it is UNPROFESSIONAL. Doing the job safely, effectively, and economically are traits of a true professional.

Accepting unnecessary risk. There’s an old saying that goes: “No peace-time mission is worth dying for.” If you have an emergency, handle it as an emergency. While a pilot’s “can-do” attitude is commendable, taking unwarranted risks can mean the loss of life or loss of a valuable asset.

On-the-spot correction. On the previous flight by the mishap pilot, his flying was characterized as “less than professional.” As an aerial supervisor, aircrew member, passenger, or controller on the ground, if you see or feel that something is unsafe, it is your duty and responsibility to SPEAK UP ! By speaking up, you just may prevent an accident from occurring.

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On September 4, 2008 BLM issued an Operations Alert on the subject of personnel and equipment safety. The Operations Alert is applicable to all fire suppression operations and is reprinted in its entirety.



UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Office of Fire and Aviation

Operations Alert

No. 08-01

September 4, 2008

Subject: PERSONNEL AND EQUIPMENT SAFETY

Area of Concern: RETARDANT/SUPPRESSANT APPLICATION

Discussion: On August 27, 2008 a Single Engine Airtanker (SEAT) crashed on the Flat Bush Fire, Northwest of Meeker, Colorado. Debris from the accident damaged two federal wildland fire engines and narrowly missed the six crewmembers. The approach to the drop brought the SEAT over the location where the engines and crewmembers were staged.

Aerial supervisors and incident pilots constantly work with ground crews to ensure drop areas are clear of personnel prior to dropping retardants or suppressants. The lesson learned here is that when applicable, we need to apply this measure of safety to personnel and equipment located in and around the aircraft's final approach and departure path. This can be accomplished by working through the aerial supervisor or communicating directly with the tanker/helicopter pilot to safely relocate personnel and equipment.

Don't assume that aerial resources can always see you. If you have concerns communicate them immediately. Additional information on retardant use and effectiveness can be reviewed in the Aviation portion of the Incident Response Pocket Guide (IRPG).
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