Final Report

NON SERIOUS ACCIDENT REVIEW: AIRCRAFT INCIDENT

PAYNES BAY FIRE, JUNE 19, 2011

(Alligator River NWR, Dare County, NC)

EXECUTIVE SUMMARY

On June 19, 2011 at approximately 1500 a Fish and Wildlife Service (FWS) pick-up truck with 2 occupants, was directly hit by the water dropped from a helicopter water bucket causing damage to the roof of the vehicle. No personnel injuries were reported. Physical evidence and witness statements have conflicting aspects to the pilot's account of the incident.

NARRATIVE

A Bell 407 contract helicopter was assigned bucket work on Division "L" filling from a water source near the intersection of Beechland and Deer Rd. The helicopter was using a 180 gallon bucket on a 100' line. Around 1500 the pilot radioed the dip site manger and trainee (2FFs) who were parked so they could see the water source that he wanted to switch dip locations. A few moments later the 2FFs lost sight of but could hear the helicopter, and their truck was directly hit by a bucket drop. The force from the water caved in the roof of the cab approximately 12 inches. The 2FFs did not sustain any injuries.

The helicopter and the 2FFs moved to the new location and started bucket operations. During one of the fills, a piece of wood got in the bucket. The pilot radioed the 2FFs that he needed them to remove the wood. When he lowered the bucket to the ground, he noticed the damage done to the truck, aborted the mission, returned to the helibase and reported the incident to the helibase manager (HEB2) at approximately 1620. The helicopter was removed from availability and the Air Support Group Supervisor (ASGS) was notified of the incident. At 1734 the FWS Regional Aviation Manager (RAM) was notified. Shortly thereafter the company was notified, a Safecom filed, and the pilot released from the incident. The ASGS notified the Air Ops Branch Director (AOBD) who in turn notified both Incident Commanders (ICs) of the incident.

INVESTIGATIVE PROCESS

The report is based on numerous interviews conducted by law enforcement officers assigned to the incident. Follow-up questions by this report's preparers where used to supplement the LEOs interviews.

Human, environmental and material factors were considered in respect to the incident. Human factors played the primary role in the incident

FINDINGS

1. Pilot stated he intended to execute a trailing bucket drop (30kts into a 30kt head wind) for the purpose of dust abatement.
2. Statements from neither the pilot nor the 2FFs indicated that the drop (purpose, location nor timing) was communicated.
3. Physical evidence and witness statements have conflicting aspects to the pilot's account of the incident.
4. One of the 2FFs stated the cab of the truck was damaged to the extent that she had to lie on her back and use her legs to kick the roof back up to an operational height.
5. The 2FFs did not immediately report the incident.
6. The Chief of Aviation Safety & Program Evaluations Division of AMD was notified in approximately one hour of the event occurring.
7. The Agency Administrator (AA), regional fire personnel, and regional safety personnel were notified of the incident on Monday, June 20.
8. As of 6/22/11 Aviation Management Directorate (AMD) has determined this to be an Incident With Potential (IWP) and will investigate.

DISCUSSION

There are elements within the findings that show human factors contributed to the incident. The pilot's failure to communicate the drop's purpose, timing nor location resulted in the personnel not securing the drop zone and leaving the area.

There was a time lag between the time of the incident and it being reported to Air Operations which could have been reduced if the 2FFs had communicated with the pilot or there Division Supervisor immediately. Once Air Operations was briefed on the incident, the reporting up the aviation management line was very good; however there was a lag in reporting up the Agency (FWS) line. Reporting timelines were not able to be met because of the lag (i.e., 24 hour report, Safety Management Information System entry).

RECOMMENDATIONS

1. Ensure effective communications between pilot and dip site managers are established and maintained.
2. Ensure ground personnel clearly understand the mission and timing of the drops

3. Ensure all persons and equipment are clear of the drop area.
4. Ensure timely reporting up all the pertinent lines.

CONCLUSION AND OBSERVATIONS

Lack of communication between the pilot and the ground subsequently resulted in the damage of Government property and had the potential to cause serious injury to fire personnel. The pilot's judgment and decision making was the sole contributing factor in AMD's investigation.

Prepared by Vince Carver (Fire Ecologist GA-R4R) Aug 17, 2011.