Lessons Learned

Subject: Communication

Area of Concern: Critical Information Passdown

Distribution: All Aviation Activities

Discussion: Ask yourself these questions: How well do I communicate important information to others? Do I ensure the right people are aware of critical aviation safety related information? Effectively communicating critical safety related information remains a cornerstone of accident prevention. The following incident contains a valuable lesson on how ineffective communication became a link in the infamous mishap chain of events that was fortunately broken before an accident occurred.

During the busy and tumultuous period of setting up camp in the spring, a fuel specialist inspected two Jet A fuel tanks (Tank 1 and Tank 2) prior to constructing the fuel transfer system that would supply aircraft fuel for the summer. As the fuel specialist was draining Tank 2, he discovered a small amount of sludge and discoloration inside the tank. Realizing the tank should not be used, the fuel specialist drained all the remaining fuel from the contaminated tank thus requiring all helicopter fueling from Tank 1.

Camp personnel were informed of Tank 2’s condition and the fuel log inside the camp’s main tent noted zero fuel for Tank 2 with the statement “DO NOT USE TANK 2”. Several weeks later, the camp management and pilots were all replaced by a new crew. Acting alone, one of the replacement pilots emptied the fuel from Tank 1 and moved the fuel transfer system (pumps and hoses) from Tank 1 to Tank 2.

After pumping several gallons of fuel into the aircraft while connected to the contaminated tank, the pump stopped. The pilot asked around the camp as to why he could not receive any fuel from Tank 2 and was informed that Tank 2 contained contaminated fuel. It was immediately apparent that contaminated fuel may have been pumped into the aircraft. The camp’s current management contacted the previous management where it was ultimately determined that the tank was completely drained prior to their departure and that no fuel had been added since.
Any fuel that was pumped into the helicopter while connected to Tank 2 was residual fuel that remained within the hose and the pump when it was originally connected to Tank 1. The pilot took several fuel samples from the helicopter and determined the fuel to be free of any contaminates. The aircraft operated normally without incident.

How could this have happened?

Poor communication and assumptions generate risk, especially during a large personnel turnover. Although most of the original camp employees were aware of the contaminated tank and it was marked on the fuel log, there were no controls or communication at the point of delivery.

Remedies applicable to this particular (safety critical) situation include labeling the tank “DO NOT USE”, mechanically altering the connecting points that would prevent a fuel line from being attached, or removing the tank from the fueling area. Immediately following the incident, the camp manager red tagged, flagged, and labeled Tank 2.

Information – **PASS IT UP, PASS IT DOWN, PASS IT ALL AROUND !**

/s/ Keith C. Raley
Keith C. Raley
Chief, Aviation Safety and Program Evaluation

/s/ Ron Hanks
Ron Hanks
Chief, Aviation Risk Management