



Department of the Interior Lessons Learned



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Subject: Mishap Response and In-Flight Decision Making

Area of Concern: Emergency Procedures

Distribution: All Aviation Activities

Discussion: In August, 2010 at approximately 2134 Alaska Daylight Time, a DOI pilot was conducting a law enforcement reconnaissance flight in an Aviat A1-B Husky airplane. The pilot stated that he was flying at an altitude below 4,000 feet mean sea level (MSL) when he noticed the odor of “hot” oil, observed increased engine vibration, engine oil temperature rising, and engine oil pressure falling. The pilot became increasingly concerned about the potential for an engine failure and decided it would be safer to make an emergency landing to a gravel bar than to try to make it to an airport located 30 miles away (15 minute flight).



On final approach to the gravel bar (with dimensions of 275’ x 40’), the pilot stated that he elected to shut the engine down to minimize the chance of a fire. The aircraft was in a left bank when the left main landing gear struck a one foot deep ditch running diagonally across the landing area and the left wing tip struck several small alder trees. The aircraft yawed to the left and both propeller blades and the right wing tip were damaged when they impacted in the river. The aircraft sustained substantial damage.

The pilot used the satellite phone to call dispatch and reported an “aviation precautionary landing” to which he also requested dispatch to notify his supervisor. The pilot did not clearly articulate that the aircraft was damaged or that it had been involved in an accident, which delayed the proper notification to his bureau management, AMD Safety, and the NTSB until the next day. Neither the pilot nor the dispatcher initiated their aviation mishap response plan. As a result, the pilot spent the night on the gravel bar and was picked up the next morning by helicopter.

Cost of this mishap: \$101,890

Introduction	
Mishap Description	
Aircraft Accident Report	
Emergency Contact List	
Notes	

LESSONS LEARNED: Fortunately, the pilot was not injured despite the significant potential. Had the pilot been seriously injured, the delay in proper notification of responsible parties and subsequent activation of their mishap response plan could have resulted in something far more tragic than a damaged aircraft.

The dispatcher was on a temporary assignment from a completely different geographic region who had not been properly trained in flight following or aviation mishap response. Exercising your mishap response plan on an annual basis is critical to its success as it will identify opportunities for improvement for both personnel and the plan itself. A reactive approach to such matters will often yield disastrous results. Compounding matters further was that managers assigned to this operation were not in compliance with many Interagency Aviation Training (IAT) requirements as well.

The pilot may have thought that an engine fire or engine failure was about to occur. At the same time he also recognized that the engine was producing full power and operating in the acceptable range for temperature and oil pressure. While it is appropriate to fly conservatively and not take unnecessary risks, **don't create an emergency when one doesn't exist.**

RISK ASSESSMENT. Albeit hasty, a risk assessment would have included aircraft operating status, distance to an airport, and off-airport landing sites. The airport was located 30 miles away with several landing areas between the pilot's location and the airport that were more suitable than the one selected. The size of the gravel bar (275' x 40') would be a challenge even for the most experienced Alaska mentor pilot. The pilot stated that he made two high reconnaissance passes over the area. In the amount of time it took to do the reconnaissance, he would have been a lot closer to the airport and rescue facilities.

COMMUNICATION. The pilot did not set the transponder to the emergency code, the Emergency Locator Transmitter (ELT) to emergency, or use the radio to notify anyone of his situation or intentions prior to landing. In an emergency, let everyone know as soon as possible. Since the engine was producing full power, ample time was available **BEFORE** the pilot landed to let someone know that he had an emergency. Again, what if the pilot had been seriously injured (and incapacitated) on landing? The delay could have cost him his life.

After landing, there was no doubt that an accident had occurred. Be specific – let people know, in no uncertain terms, that you had an accident. Not telling anyone won't make it go away and the life you save may be your own.

BOTTOM LINE:

- Ensure your people are trained to carry out their responsibilities.
- Ensure you exercise and update your mishap response plans on an annual basis.
- Know your aircraft and the emergency procedures
- Keep your situational awareness high by continuously reviewing the "what if?".
- Tell it like it is – communicate.
- Ensure management is made aware and follow up as needed.

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