



Interagency Aviation Lessons Learned



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Page 1 of 2

Subject: The Importance of Preflight and Postflight Inspections

Area of Focus: Flight Safety

Distribution: All Aviation Operations

Discussion: While conducting a caribou survey, a pilot and a biologist decided to land at an off-airport landing strip for a rest break. Landing on the strip was discussed during the mission brief prior to takeoff.

Before landing on the strip, the pilot conducted two low reconnaissance passes and a “*drag the wheels*” maneuver. The pilot landed uphill with a slight tailwind using minimal braking. The pilot and biologist both stated that they did not feel or hear anything strike the aircraft during the initial “*drag the wheels*” maneuver or subsequent landing.

After landing, the pilot taxied to the uphill end of the strip, made a left 180 degree turn placing the aircraft into the wind and shutdown. The pilot then conducted a visual inspection of the aircraft after shut down but commented that he could have done a more thorough postflight.

After the break, and in preparation for takeoff, the pilot walked the length of the strip where he removed a few loose rocks, and hung a wind indicator for reference.

The pilot departed downhill into the wind and became airborne quickly but then briefly made contact with the middle flat section of the strip in a tail low attitude. The aircraft rolled a short distance before becoming airborne again. The pilot stated that he did not deviate (laterally) from the strip during takeoff.

The pilot described the takeoff as normal with the exception of making contact with the strip. He was confident that he maintained positive directional control and a safe airspeed throughout the departure and did not feel or hear any objects strike or damage the aircraft. The biologist also indicated that he did not hear or feel anything unusual during the takeoff.

Once airborne, the pilot and biologist agreed that lowering ceilings and reduced visibility due to smoke prevented them from continuing the mission so they returned to the airport they originally departed from.



The landing at the airport was uneventful. Upon shutdown and postflight inspection of the aircraft on the ramp, the pilot observed a tennis ball size hole in the fabric of the left horizontal stabilizer and impact damage to the leading edge. The damage rendered the aircraft unairworthy.

By failing to conduct a thorough post or preflight inspection at the off-airport landing site, the pilot placed both himself and the biologist at risk by operating an unairworthy aircraft. Assuming the damage was present before takeoff, the pilot would not have been in compliance with 14 CFR 91.7 Civil Aircraft Airworthiness which states:

(a) No person may operate a civil aircraft unless it is in an airworthy condition.

(b) The pilot in command of a civil aircraft is responsible for determining whether that aircraft is in condition for safe flight. The pilot in command shall discontinue the flight when unairworthy mechanical, electrical, or structural conditions occur.

This accident highlighted an issue with the Department of Interior Manual (DM) wherein it states that the pilot must conduct an inspection of the aircraft at the start of the fly day and an inspection of the aircraft after the last flight of the day. Obviously this is not “best practice” and a change to the DM has been submitted.

Flying an unairworthy aircraft put the pilot and the biologist in unacceptable risk of serious injury or death.

FLY SAFE – FLY SMART

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