



MEMORANDUM

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Aviation Accident Investigator
Alaska Regional Office

Date: January 13, 2020
Subject: FAA Examination of N4112K
NTSB Accident Number: ANC20LA013

FAA Air Safety Inspector John Chalstrom conducted an examination of the Hageland Services PA-31-350 airplane that experienced a landing gear collapse at Fairbanks International Airport on January 12, 2020. He conducted the examination after the airplane was moved to a hangar. This is an excerpt of his observations and findings statement with attached photographs.

Upon arrival I visually inspected right main landing gear, all appeared normal, checked hydraulic reservoir and found it to be empty. Looked at all landing gear and belly of ACFT for hydraulic leaks and noticed fluid near the right wing root, the ACFT was then placed on jacks and the hydraulic mule attached and the system was pressurized. Hydraulic fluid began spraying from the right main gear unlock actuator . Pressure was then removed and the actuator and line were removed for inspection, the line was found serviceable but a fitting on the actuator was found stripped causing the leak, the fitting was appropriate for the application but had failed for unknown reasons. The open fittings were then capped and the gear cycled, all functions appeared normal. It is believed the gear would not come down due to depletion of hydraulic fluid due to the leaking fitting.

Inspector Chalstrom returned to the airplane a few days later to examine the emergency landing gear system. The company had already removed the right shuttle valve and the mechanic stated that there was water inside the valve when it was disassembled. The inner bore of the cylinder had corrosion inside and the valve would not move. It was likely that the cold temperatures would have caused the water in the valve to freeze, which would have prevented the air in the emergency system from activating the right landing gear when activated.

