



MEMORANDUM for RECORD

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Eastern Region Aviation

Date: August 14, 2018, 0900-1000 EDT
Airframe Examination (Landing Gear)
NTSB Accident Number: ERA18LA176 – Atlanta, GA

The landing gear and associated hydraulic system components were examined on the airframe at Dekalb-Peachtree Airport (PDK), Atlanta, Georgia, on August 14, 2018. NTSB ASI Ralph Hicks, NTSB ASI Eric Alleyne, FAA Inspector Vincent English, and accident pilot Sergio Gill were present for the examination. Epps Aviation provided mechanic services. The following observations were noted:

- The aircraft was parked on the main ramp tie down area at PDK. The main landing gear were extended. The nose landing gear was retracted. The nose of the aircraft was jacked to level the airplane and facilitate the examination.
- The cockpit interior carpet and side panels were removed for the inspection. The floor area was wet with hydraulic fluid. According to the pilot, the carpet at the pilot's seat became soaked with hydraulic fluid during the flight.
- The emergency hydraulic pump actuator, located between the cockpit seats, was activated by the investigators. Very little hydraulic resistance was noted when the handle was pumped. The hydraulic reservoir was nearly depleted.
- Further examination revealed that, as the emergency hydraulic handle was activated, a stream of hydraulic fluid sprayed from the surface of the aluminum line connecting the emergency handle/pump to the electric hydraulic pump that was mounted under and behind the instrument panel of the pilot's side. The line was about 23 in long (Figure 1). The plastic sheathing protecting the line was intact; it was partially removed to facilitate examination of the leaking area. There were no areas of line chafing noted on the line and no adjacent structure where chafing would occur. A video was taken of the line leaking fluid.
- The leaking hydraulic line was removed and examined. A visual examination using 10X magnification revealed an area of corrosion and pitting on the

aluminum surface. The affected area was about 0.75 in long and covered about $\frac{1}{2}$ the circumference of the tube (Figure 2).

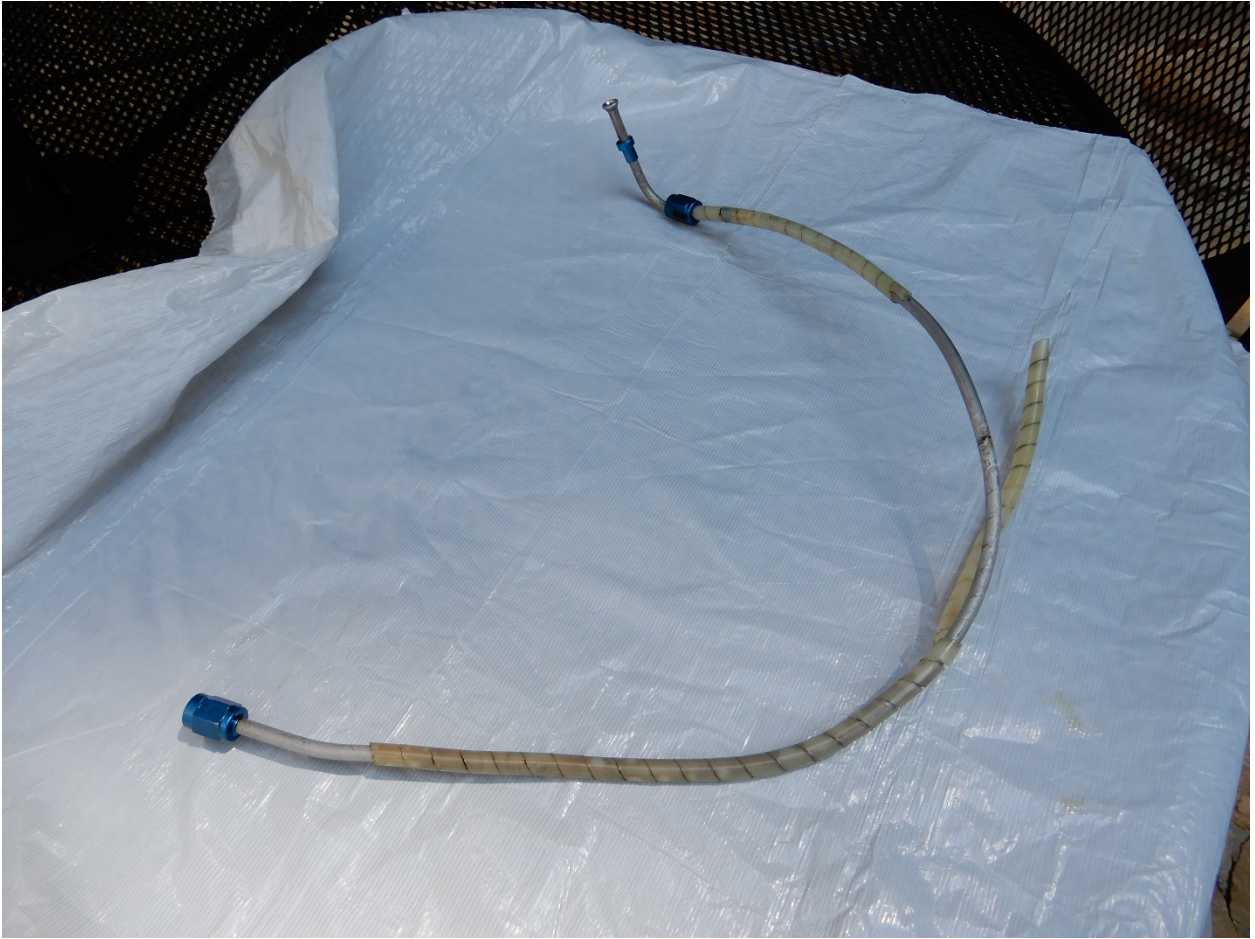


Figure 1. Hydraulic line between emergency pump and electric hydraulic pump.



Figure 2. Pitted area in hydraulic line where fluid leaked.

- No further examination of the airframe was deemed necessary.