



Memorandum For Record

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Date: November 3, 2021
NTSB Accident Number: ERA21LA320

As part of the investigation the NTSB required examination of the aileron and rudder flight control systems, and if possible, cable tension checks of the aileron and rudder flight control systems. That information was relayed to the operator of the aircraft.

The Chief Flight Instructor of ADF Flight School sent NTSB 5 pictures and 2 videos taken from the cockpit area regarding the pitch, aileron, and rudder flight controls. He also sent an e-mail to NTSB on August 16, 2021 indicating, “Good Afternoon, Attached are the pictures from the mechanic and a message from him explaining” – with the message from the mechanic indicating, “As you can see in the pictures, because of the firewall damage [the rudder] pedals are pushed back and hard to move, there is a rudder pedal bracket broken, and rudder return springs are pushed back. [The] ailerons [control] cable are rubbing against the metal near the pulleys and control yoke is hitting the upper channel [regarding pitch].”

Video Titled “ce650302-e46f-4f42-8db1-6017a64ea0f8” was 8 seconds in length and depicted a single aileron control reportedly on the right side of the airplane underneath the instrument panel. The video which included sound depicted the cable moving in both directions and while moving a scraping sound was heard.

“IMG_6975.MOV” was a nine second video clip taken beneath the instrument panel. The video which included sound depicted the right side of the control yoke for pitch moving in both directions. While moving a scraping sound was heard during movement in both directions and the aileron sprocket and chain was in close proximity to green colored RH Control Yoke Guide Assy, part number (P/N) 0513294-7.

Because of the damage to the aileron and rudder flight control systems cable tension testing could not be performed. A student pilot who had flown the airplane earlier that day did not report any aileron or rudder flight control issues during an interview conducted on August 12, 2021 while at the operator’s facility (refer to FAA Record of Conversations).

The airplane illustrated parts catalog depicted the “upper channel” as being RH Control Yoke Guide Assy, part number 0513294-7.

The Federal Aviation Administration (FAA) inspector provided picture IMG_0236.jpg. A review of that picture which depicted the lower forward fuselage and portion of the nose landing gear revealed partial separation of the lower nose gear fitting, PN 0543016-1.

Pictures of the damaged areas taken by the FAA inspector on September 3, 2021, were provided to NTSB using Kiteworks on September 9, 2021. A review of the provided pictures revealed a compression wrinkle was noted in the floor on the pilot’s side of the airplane (Figure 1), and a compression wrinkle was also noted in the floor on the co-pilot’s side of the airplane (Figure 2).

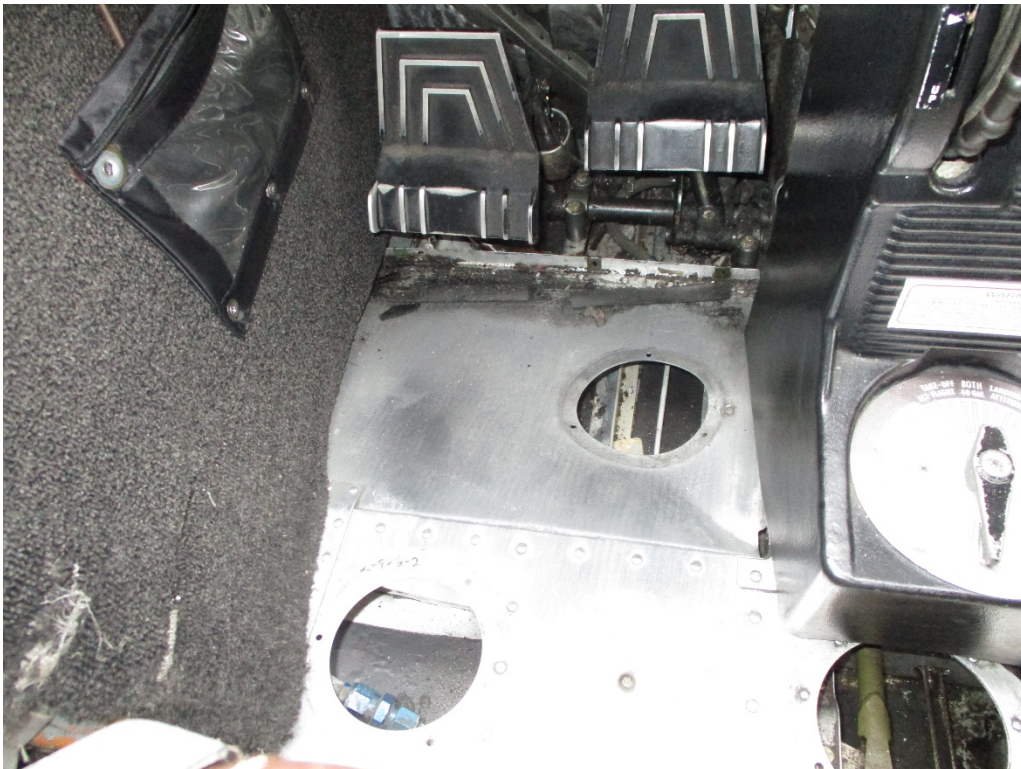


Figure 1: FAA Digital Photograph. View of the Pilot side Interior of the Aircraft Depicting A compression Wrinkle in the floor.

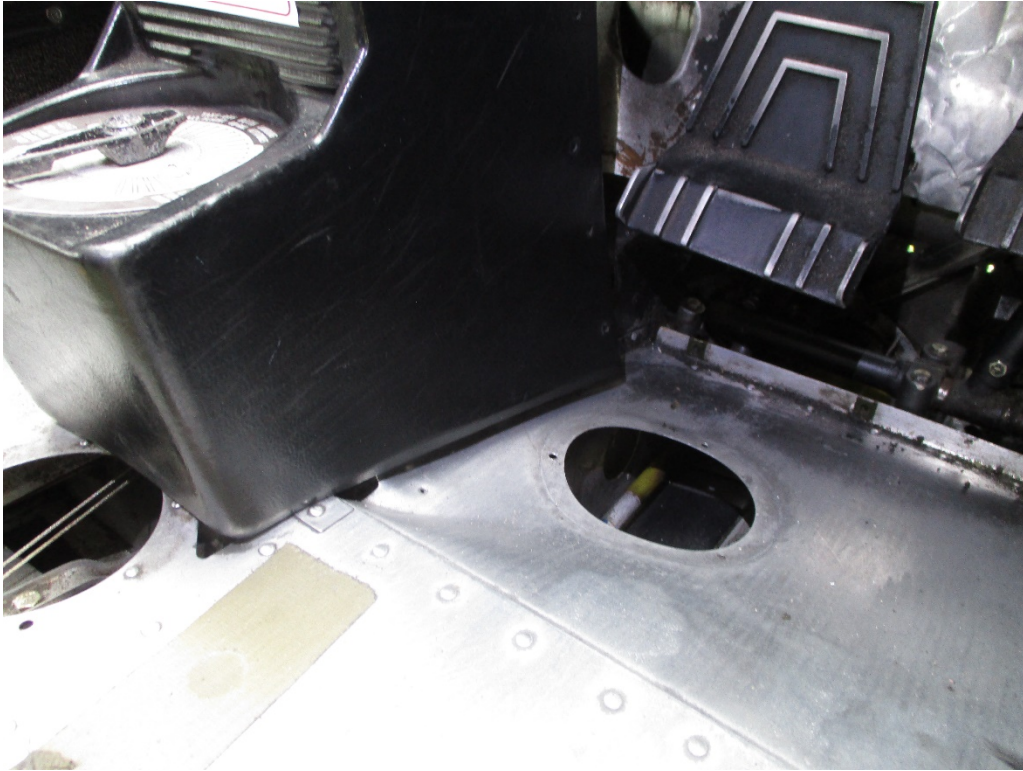


Figure 2: FAA Digital Photograph. View of the Co- Pilot side of the Interior Aircraft Depicting A compression Wrinkle in the floor.