

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Research and Engineering
Materials Laboratory Division
Washington, D.C. 20594



June 5, 2018

MATERIALS LABORATORY FACTUAL REPORT

Report No. 18-048

A. ACCIDENT INFORMATION

Place : Talkeetna, AK
Date : 8/16/2017
Vehicle : Thrush S-2R
NTSB No. : ANC17LA046
Investigator : Mike Hodges

B. COMPONENTS EXAMINED

Tail wheel spring assembly and portion of attachment bolt with nut (figure 1)

C. DETAILS OF THE EXAMINATION

The tail wheel spring assembly had a portion of a fractured bolt shank protruding from the attachment bolt hole on one side (figure 2) and a portion of bolt shank recessed in the bolt hole on the other side (figure 3). The spring and protruding portion of the bolt exhibited corrosion and pitting. The fracture surface of the recovered portion of the bolt with the nut still attached matched the portion of the bolt protruding from the spring (figure 3). The deformation of the bolt and appearance of the fracture surface are consistent with bending overstress.

Joseph Panagiotou
Fire Protection Engineer



Figure 1: Tail wheel spring assembly and fractured bolt



Figure 2: Portion of fractured bolt protruding from the spring's attachment bolt hole.



Figure 3: Bolt shank recessed in tail wheel spring's attachment bolt hole.



Figure 4: Alignment of protruding bolt shank and recovered portion of attachment bolt.