

NATIONAL TRANSPORTATION SAFETY BOARD

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



October 18, 2019

MATERIALS LABORATORY FACTUAL REPORT

Report No. 19-056

A. ACCIDENT INFORMATION

Place : Lady Lake, Florida
Date : September 6, 2019
Vehicle : Vans RV-12, N767FS
NTSB No. : ERA19FA265
Investigator : Lynn Spencer, AS-ERA

B. COMPONENTS EXAMINED

Elevator trim actuator control assembly.

C. DETAILS OF THE EXAMINATION

An overall view of the submitted elevator trim actuator control assembly is shown in figure 1. The arm shown at the left in figure 1 was fractured, and documentation from the investigator in charge indicated that it had been fractured during recovery.

The control rod was fractured at the location shown in figure 1, and the rod was bent at a location approximately midway between the fracture and the end fitting. The fracture surfaces on the control rod were on slant angles consistent with ductile overstress fracture, and the rod was deformed adjacent to the fracture consistent with bending deformation. The bending deformation at the fracture and the mid-point were in opposite directions, consistent with a buckling failure under compression loading.

Matthew R. Fox, Ph.D.
Senior Materials Engineer

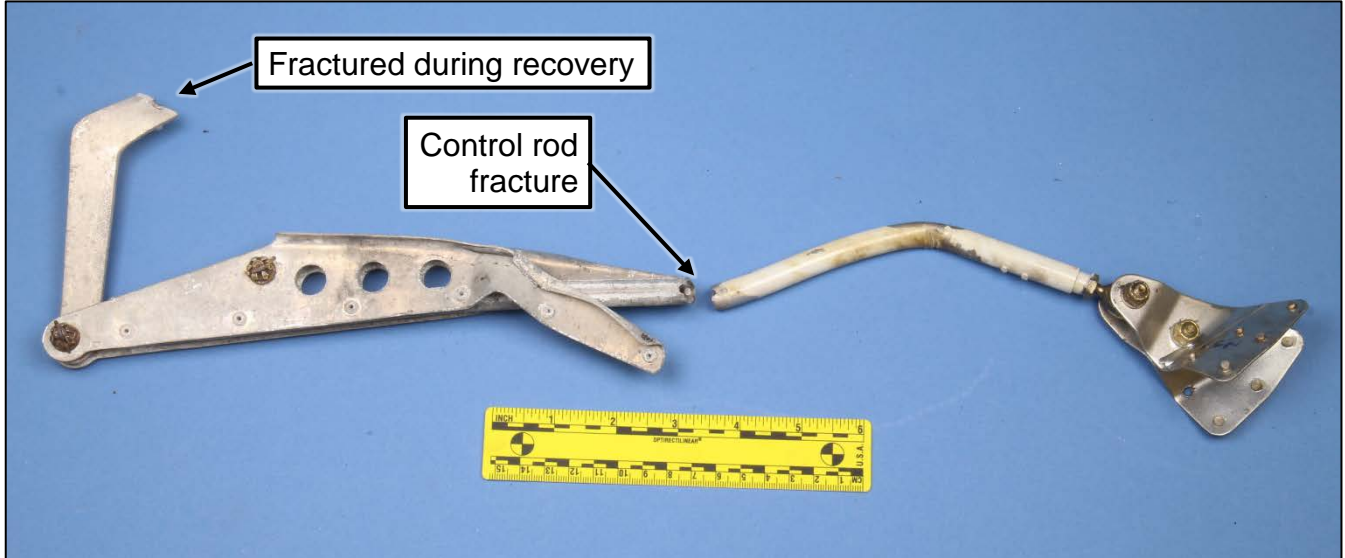


Figure 1. Overall view of the submitted elevator trim actuator control assembly.