

NATIONAL TRANSPORTATION SAFETY BOARD

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



March 20, 2017

MATERIALS LABORATORY FACTUAL REPORT

Report No. 17-029

A. ACCIDENT INFORMATION

Place : Osage Beach, Missouri
Date : October 22, 2016
Vehicle : Beech C23, N20087
NTSB No. : CEN17FA024
Investigator : Jason Aguilera, ASI-CEN

B. COMPONENTS EXAMINED

Part of Right Aileron Cable

C. DETAILS OF THE EXAMINATION

The two as-received pieces of right aileron cable are displayed in figure 1. One piece contained a turnbuckle, the 7 by 19, 1/8 inch wire rope on one side of the buckle was fractured as shown. The second cable piece contained the mating fracture. The fractured side of the turnbuckle was labeled "Column Side".

Magnified optical examinations of the individual fractures of the cable wires revealed cup and cone and slant fractures consistent with overstress separations of the individual wires and of the overall wire rope. No indications of preexisting fatigue, corrosion or wear, either internal or external, were uncovered during the examinations.

Joe Epperson
Sr. Metallurgist

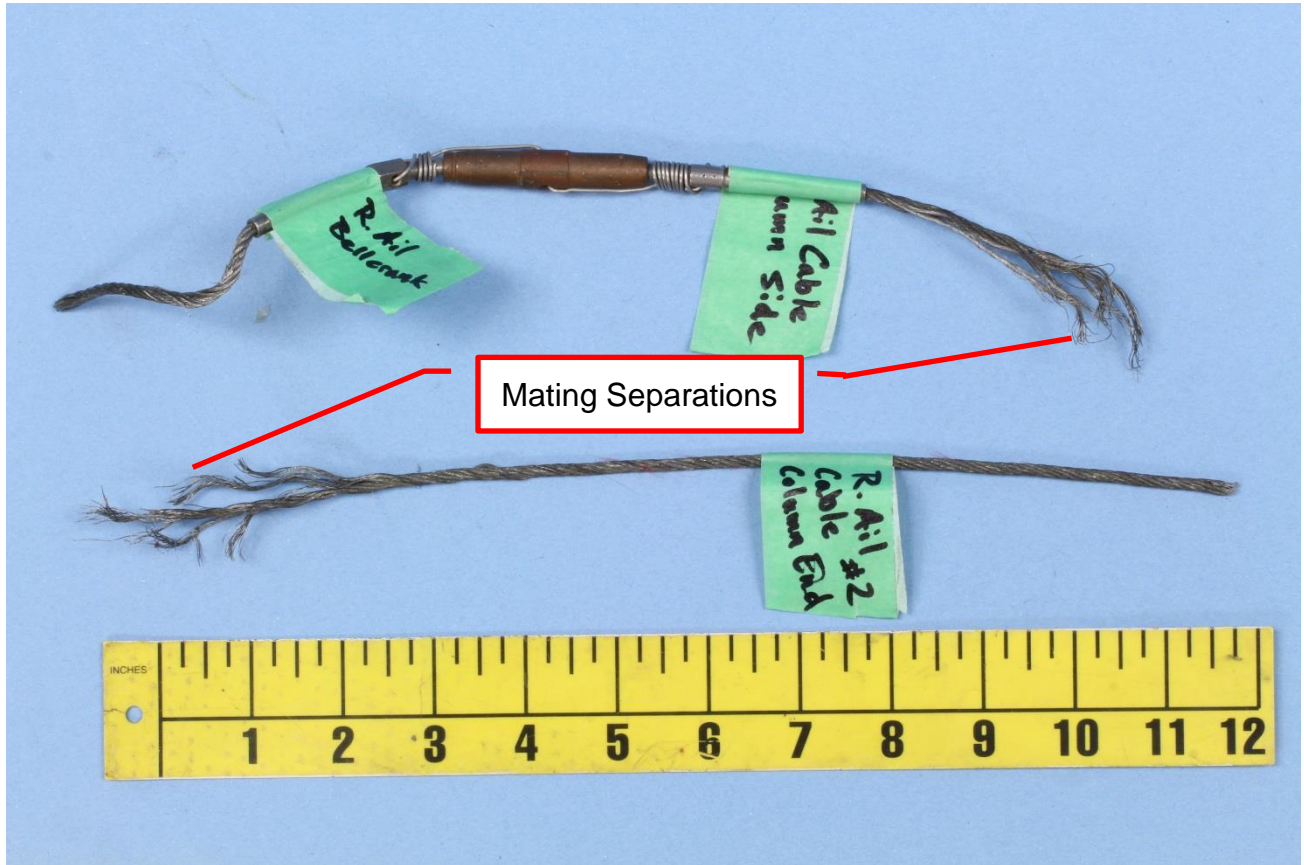


Figure 1. An overall view of the as-received aileron cable pieces with mating wire rope separations denoted.