

DOCKET NO. SA-510

EXHIBIT NO. 7D

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C.

NTSB METALLURGIST'S FACTUAL REPORT
USAir FLIGHT 427, NO. 1 SLAT TRACK

Cynthia L. Keegan

NATIONAL TRANSPORTATION SAFETY BOARD

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



December 13, 1994

METALLURGIST'S FACTUAL REPORT

Report No. 95-29

A. ACCIDENT

Place : Aliquippa, Pennsylvania
Date : September 8, 1994
Vehicle : Boeing 737-3B7, N513AU
NTSB No. : DCA94-M-A076
Investigator : Cynthia Keegan, AS-40

B. COMPONENTS EXAMINED

No. 1 outboard slat track, six pieces of a left main landing gear wheel half, three bolt pieces.

C. DETAILS OF THE EXAMINATION

An overall view of the wheel and bolt pieces is shown in figure 1. Visual examination of the wheel pieces revealed features typical of overstress separations. No evidence of preexisting fracture areas was noted. The three bolt pieces are at the bottom of figure 1 and were head portions. Visual examination of the bolt fractures (in the shanks adjacent to the threaded ends) revealed fracture features and deformation consistent with bending overstress separations. No evidence of preexisting fracture areas was noted.

Figure 2 shows an overall view of the No. 1 slat track pieces submitted for examination. The slider arm was grossly distorted and separated approximately at a roller position. The unlabeled arrows in figure 2 indicate mating locations on the arm. Visual examination of the separated arm revealed features typical of an overstress separation. No evidence of preexisting fracture areas was noted.

A handwritten signature in black ink, which appears to read "James F. Wildey II".

James F. Wildey II

National Resource Specialist - Metallurgy

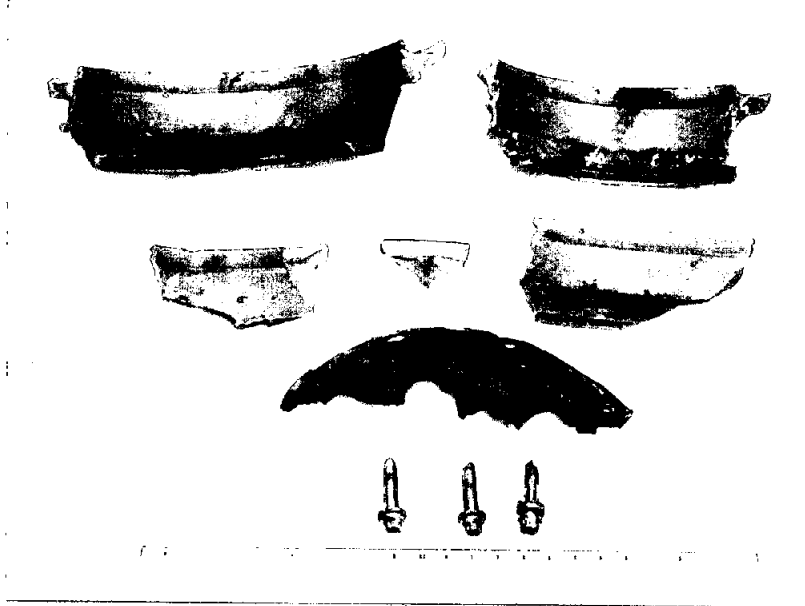


Figure 1: Overall view of the wheel pieces and bolt pieces.

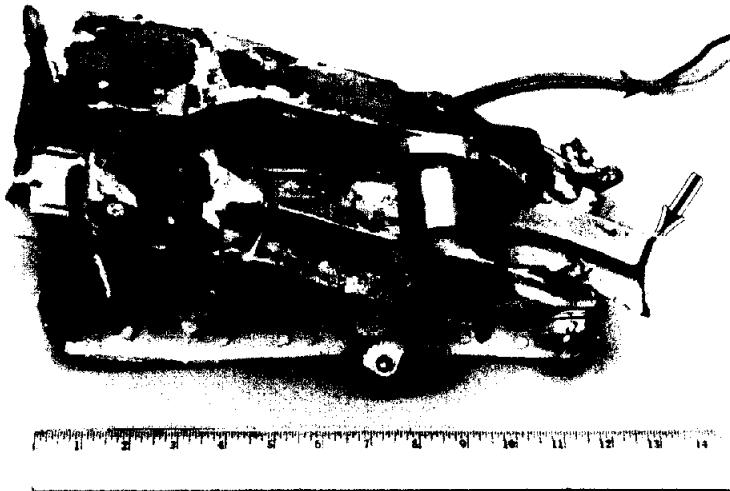


Figure 2: Overall view of the No. 1 slat pieces. The unlabeled arrows indicate mating locations in the slider arm.

