

NATIONAL TRANSPORTATION SAFETY BOARD

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



January 20, 2000

MATERIALS LABORATORY FACTUAL REPORT

Report No. 00-022

A. ACCIDENT

Place : Branson, Missouri
Date : December 9, 1999
Vehicle : Cessna 525 Citation,
NTSB No. : CHI99-F-A040
Investigator : David Bowling

B. COMPONENTS EXAMINED

Barometric Pressure and Coleman Window counter from Pilot's Altimeter

C. DETAILS OF THE EXAMINATION

An overall view of the component is shown as received in figure 1. The altimeter contained a top ("T" in figure 1) and a bottom ("B" in figure 1) drum counter, each with four wheels. Visual examination with the aid of a bench microscope disclosed the component was exposed to high temperatures, which had partially melted the aluminum wheels of the counters. The read out numbers on the front of the drum counter were mostly destroyed from exposure to the fire as shown in figure 2.

Visual examination of the reverse side of the drum counters revealed that only three of the four wheels for each counter were visible. The fourth wheel was hidden from view by the support frame as shown in figure 3.

The counter assemblies were removed from the housings, taking care not to alter the relative positions of the wheels to each other. After disassembly, the fourth number on the reverse side of each of the counters was visible. The displayed numbers on the reverse side of the top counter were "6568", and the displayed numbers on the reverse side of the bottom counter were "7448", as shown in figure 4. The reverse of these numbers (displayed on the front of the counters) should therefore be "1013" for the top counter and "2993" for the bottom counter.

Spencer Phillips
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