

No. 8

Aviación y Comercio, DH-114 Heron aircraft, EC-AOA, was damaged on landing at Fuenterrabía Airport, Spain, on 26 October 1957. Report released by the Directorate General of Civil Aviation, Spain, November 1958.

Circumstances

EC-AOA departed Barajas Airport, Madrid, on the morning of 26 October on a scheduled passenger transport flight to San Sebastián with a stop planned at Fuenterrabía. Brake failure occurred on landing at Fuenterrabía Airport, and the aircraft left the field and fell into a slough in the estuary of the Bidasoa River, approximately 20 metres from the airport limits. As a result of the accident, a passenger suffered a fractured arm, and two other passengers were slightly injured. The remaining 14 passengers and the crew were uninjured. The aircraft was destroyed.

Investigation and Evidence

The pilot had 15 hours flying time on Heron aircraft and a total of 2 500 hours to his credit.

Tests of the aircraft's pneumatic system disclosed that when in "gear down" position, the selector lever of the gear operating device produced an internal leak whereby the bottle pressure escaped to the outside air; both the flap and brake systems, however, were in perfect operating condition. With gear up and flaps 0°, the pneumatic system remained normal. Extension of flaps to 20° was carried out normally, but gear release and extension allowed the compressed air in the bottles to escape to the outside air and, consequently, the bottles were gradually discharged. Brake tests and flap extension to 60° were performed during this discharge, with satisfactory results as long as the bottles still retained some air

pressure. Total bottle discharge left both the brake system out of order and the flaps free to retract, which prevented them from acting as aerodynamic brakes.

The Flight

On sighting Fuenterrabía Airport the aircraft was flying at 900 metres so the pilot circled the field once to lose altitude and enter Runway 05 in an ordinary glide. Touchdown was at about 150 metres from the threshold of the runway at a speed, considered by several witnesses to be excessive, and the aircraft continued on a normal run for about 300 metres at which point the pilot switched off the ignition of the inner engines and applied brake control. As this produced no effect, he repeated the manoeuvre several times and attempted to ground loop in order to avoid leaving the strip by the approach end of Runway 23. However, he did not fully succeed and merely performed a slight turn which did not prevent the aircraft from leaving the aerodrome and falling into a slough.

The pilot should not have relied exclusively on the flaps and the brakes, even in the presence of wind. He should have touched down at reduced speed, taking maximum advantage of the runway length.

Probable Cause

The total discharge of the air system bottles, owing to the internal leak in the landing gear selector, prevented brake functioning.