

No. 3

Hunting Air Travel Ltd., Viking G-AHPD aircraft  
crashed near Bordeaux - Mérignac on 8 May 1951  
(This enquiry was conducted by France in accordance with Annex 13  
to the Convention on International Civil Aviation)

Circumstances

The Viking G-AHPD, operating the service Gibraltar-Bovingdon with point of call at Bordeaux touched down at Bordeaux-Mérignac Airport at 1133 U. T. At 1410 U. T. the aircraft took off for Bovingdon. On throttling down to initial climbing speed, at a height of 50 metres the pilot noted that the speed of the port engine was rapidly decreasing. He shut off this engine and feathered the propeller, opening the starboard engine full out. He then became aware that the aircraft could not maintain its safety speed without losing height and decided to make a wheels up landing on an open space south of the aerodrome. The aircraft slid along the ground for about 100 metres, slewed around and came to a standstill. The co-pilot was injured, however, the remaining four crew members and twenty-six passengers were unharmed.

Investigation and Evidence

As the aircraft had made a belly landing in a zone free of obstructions and in which the soil was sandy, damp and not very firm, it slid along on the fuselage and engine nacelles without its general structure suffering major damage.

The under parts of the aircraft, however, were damaged on impact with the ground (fuselage as far as the flooring crushed, wings damaged, propeller blades twisted but still in place, engine cowlings badly dented, undercarriage smashed); the engines and their controls were only slightly damaged.

Initial examination of the aircraft showed that the articulated control rod of the propeller governor of the port engine was missing, but there was no trace of stripping such as would indicate that such disappearance was due to the forced landing.

Search with a view to finding this articulated rod was immediately made both inside the engine cowling and in the immediate vicinity of the aircraft. The part in question was found, three-quarters buried in the ground, in the furrow ploughed by the aircraft, about three metres to the rear of the starboard wing amongst other light debris torn off at the moment of impact.

Examination of the control rod of the aforesaid link-rod showed clearly that the ball-joint was intact; the threaded end of the spindle on which it hinged exhibited, on the contrary, a considerable moment of irregularity.

This threaded end was very carefully examined and it became apparent that the castellated nut limiting the play of the ball-joint on the spindle had been unscrewed whilst the split-pin was still in place; the body of the latter was, in fact, found inside the hole drilled in the threaded part of the spindle; the tail end of it having been pulled out and pressed into the threads.

The governor spindle, on which the articulated control rod was fixed was found to be in good condition but minus the castellated nut which ensures the attachment of the aforesaid link-rod.

It was clear that the nut holding the ball-joint of the control rod on the link-rod had been unscrewed by force and that the pin on the governor spindle was missing. It is unlikely that it would not have been in place when the governor was mounted on the engine.

When the pilot operated the pitch-change control, the transmission rod freed itself from its spindles. The freed propeller governor, automatically took up the high pitch position, communicating this to the propeller. The ensuing drop in speed made it necessary to shut off the engine and the pilot feathered the propeller.

The hypotheses of malicious damage or of faulty maintenance work are equally plausible.

During its stay, which lasted 2 hours 37 minutes, the aircraft was parked on the concrete apron opposite the terminal building, an area under constant supervision by two custodians and the personnel of the Customs services. During the refuelling operations, which lasted about 30 minutes, the flight radio operator checked and tested a faulty aerial. The crew did not ask for any work to be done, nor was any work carried out on the engine or on the aircraft.

Later, when the crew went to have a meal, the aircraft remained under no supervision other than that of the custodians of the parking area. Interrogation of the aerodrome personnel, however, established that nobody had touched the engines. As a matter of fact, a repair would have necessitated the presence of a ladder in front of the defective engine, a detail which could not have passed unnoticed by the numerous airline employees (luggage porters, mechanics) who were continuously present on the parking area.

#### Probable Cause

The disconnecting of the articulated control rod of the propeller governor due to the lack of a split pin on the governor spindle and to the nut of the ball-joint of the control spindle having been unscrewed by force.