

Follow-up Action on Occurrence Report

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**ACCIDENT TO P56 PROVOST, G-AWVF AT BISHOP NORTON, 11 MILES SOUTH OF HULL,
BARFF FARM, GLENTHAM ON 08 JULY 2009.**

CAA FACTOR NUMBER : F7/2010
FACTOR PUBLICATION DATE : 07 December 2010
OPERATOR : Private
CAA OCCURRENCE NUMBER : 2009/07062
AAIB REPORT : Bulletin 10/2010

SYNOPSIS

From AAIB Report

While cruising at 2500ft the aircraft suffered a mechanical engine failure which led to an in-flight fire. The pilot was probably rendered unconscious by smoke and fumes from the fire; the aircraft crashed into a field and the pilot was fatally injured. The engine failure was initiated by a fatigue crack of the No.6 piston gudgeon pin. The cause of the fatigue crack initiation could not be determined but it is likely that a high-load event, such as a partial or full hydraulic lock, initiated the crack in the pin. The presence of corrosion pits on the inner surface of the pin was probably a contributory factor and the aircraft's low utilisation rate during the previous 45 years probably contributed to the formation of corrosion.

FOLLOW UP ACTION

The three Safety Recommendations made by the AAIB, following their investigations, are reproduced below, together with the CAA's Responses.

Recommendation 2010-029

It is recommended that the Civil Aviation Authority consider implementing calendar time limits between overhauls for Alvis Leonides series engines, and other historic aircraft engines that do not have manufacturer-recommended calendar limits.

CAA Response

The CAA accepts this Recommendation. The CAA is currently reviewing the need for additional limits on other historic engine designs, and will include the Alvis Leonides engines in this review. It is intended to complete this review by 31 March 2011.

CAA Status – Open

Recommendation 2010-030

It is recommended that the Civil Aviation Authority notify operators of piston radial engines of the correct technique for clearing a hydraulic lock.

CAA Response

The CAA accepts this Recommendation. Accordingly, CAA will issue generic information in an AIRCOM, by 31 December 2010, regarding appropriate techniques for clearing hydraulic lock on radial engined aircraft.

CAA Status - Open

Recommendation 2010-031

It is recommended that the Civil Aviation Authority consider introducing a requirement to inspect the gudgeon pins on Alvis Leonides series engines.

CAA Response

The CAA accepts this Recommendation. The CAA will consider, by 31 March 2011, the need for specific additional inspections of the pins as part of the review carried out to the introduction of calendar time limits (in accordance with Recommendation 2010-029), which may itself lead to the need for specific inspections during shop visit.

CAA Status - Open