MINISTRY OF DEFENCE

Military Aircraft Accident Summaries

MAAS 3/86

4 January 1986

ACCIDENT TO ROYAL AIR FORCE HAWK T1 XX229

Date	:	29 July 1983
Parent Airfield	:	RAF Brawdy, Dyfed
Place of Accident	:	St George's Channel
Crew	:	One Pilot
Casualties	:	One Major Injury

CIRCUMSTANCES

1. During a training sortie over the sea, the student pilot experienced the symptoms of a surge in the Adour engine of his aircraft. Despite carrying out all the necessary drills to regain control of the engine, its performance deteriorated further until the pilot was forced to eject. The aircraft crashed into the sea some 45 miles South West of RAF Brawdy; the pilot was rescued from his liferaft by a Search and Rescue helicopter. He suffered back and other injuries during the ejection.

CAUSE

2. Salvage operations started the day after the accident and continued when the weather permitted, until early November. Unfortunately, it was not possible to recover either the engine or the Accident Data Recorder. From the evidence that was available, it was considered that the failure of a blade in the compressor had initiated the damage to the engine which culminated in its failure to power the aircraft sufficiently for flight.

3. Following investigation of two subsequent and similar Adour engine failures, it was discovered that, in certain circumstances, 2nd order engine excitation could induce fatigue failure in LPR compressor blades with low natural frequencies.

SUBSEQUENT ACTION

4. As announced in another recent MAA, new frequency tested LP2 compressor blades have now been fitted across the entire Hawk fleet of engines. The new blades are individually lifed, dependent upon their natural frequencies.

Issued by:- Public Relations,
Ministry of Defence,
Whitehall,
LONDON SW1A 2HB
(Royal Air Force) 01 218 3253/3254