MINISTRY OF DEFENCE

Military Aircraft Accident Summaries

AIRCRAFT ACCIDENT TO ROYAL AIR FORCE JAGUAR GR1 XX 820

24/83 2/9/83

Date:	11 June 1982
Parent Airfield:	RAF Bruggen, Germany
Place of Accident:	1 Km East of RAF Bruggen
Crew:	One pilot
Casualties:	Nil

26 August 1983

CIRCUMSTANCES

1. The pilot of XX 820 was flying as No 3 and deputy leader of a formation of 4 Jaguars on a training sortie. Worsening weather precluded completion of the sortie as planned and the formation returned to their base as 2 independent elements. The first pair landed after a normal visual rejoin by the formation; the pilot of XX 820 overshot from his first approach to fly a second circuit but his wingman landed. During his second circuit, while he was turning onto his final approach path, the pilot heard a rapid banging and the aircraft began to sink rapidly. He levelled the wings, but on seeing some buildings ahead he delayed his ejection in order to turn his aircraft towards open ground; he then ejected. XX 820 crashed through the edge of a wood into a field and was destroyed; the pilot was uninjured.

CAUSE

2. From an initial examination of the wreckage it was determined that, whereas the left hand engine appeared to have been functioning normally up to the moment of impact with the trees, the right hand engine had virtually stopped and had suffered severe internal overheating. Furthermore, clear witness marks indicate that a threaded metallic object had been ingested by the engine. Detailed examination by the manufacturer confirmed that a countersunk-headed bolt had been ingested while the engine was rotating at high speed, and that the resultant damage to the compressor had caused the engine to surge, and then to stop in the course of the last few seconds of the aircraft's flight. The dimensions and the material specification of the bolt closely matched those of the bolts which are used in several areas of the aircraft fuselage forward of the intakes and which also secure the hinges of the intake auxiliary air doors.

3. A modification which replaced the original bolts securing the hinges of the auxiliary air doors with a slightly different type had been embodied during a routine servicing of the aircraft; the accident occurred on the first flight following that servicing. Although it was not possible to determine conclusively the origin of the bolt which caused the engine damage it was considered most likely that, when the modification was being embodied, one of

the bolts which had been removed had been left in the intake and had lodged there until final stage of the flight.

SUBSEQUENT ACTIONS

4. Instructions which cover intake inspections have been revised and those describing loose articles prevention and search procedures have been amplified.

CLAIMS

5. Five claims for damage caused by the accident have been received of which 2 have been settled and advanced payments made in the remainder. So far approximately £2740 has been paid.

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