



MINISTRY OF DEFENCE
MILITARY AIRCRAFT ACCIDENT SUMMARY

AIRCRAFT ACCIDENT TO ROYAL AIR FORCE JAGUAR GR1B XZ108

DATE:	3 September 1998
PARENT UNIT:	No 41(F) Squadron, RAF Coltishall
LOCATION OF ACCIDENT:	North Sea; 53 11N 001 16E
CREW:	One
CASUALTIES:	One Slight

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Synopsis

1. Jaguar GR1B XZ108 was engaged in routine Air Combat Training over the North Sea with two other aircraft when, at around 6,000 feet and travelling at 200 knots, control was lost. At 6,000 feet the pilot had insufficient height to regain control and at 3,360 feet he ejected. The aircraft crashed into the sea. Having sustained slight injuries, the pilot was rescued by a RAF Search and Rescue helicopter.
2. The Board of Inquiry concluded that the accident was caused because the aircraft was flown into a regime from which, given its configuration and fuel distribution, control was lost.

Background

3. At slow speeds the Jaguar's aerodynamics make it susceptible to loss of control. Because of this handling characteristic, every Jaguar pilot is specifically trained to control the Jaguar at slow speed. This training is backed up by regular briefings and before every sortie, aircrew are reminded how to cope with an anticipated or actual loss of control.

Circumstances

4. XZ108 was simulating the role of a single fighter 'attacking' a pair of Jaguars in a two versus one Air Combat Training sortie. This was the first engagement of the sortie and began at around 24,000 feet when XZ108 engaged the lead aircraft of the two 'targets'. The engagement quickly descended to about 6,000 feet.
5. Whilst manoeuvring in a right hand turn, XZ108's speed decreased and the stall warning and Automatic Voice Alert Device (AVAD) sounded, indicating that the aircraft had fallen below its minimum speed of 200 knots. The pilot lessened his pull on the control column with the effect of widening the aircraft's turn allowing it to speed up until the stall warning and AVAD stopped.
6. Having accelerated sufficiently to clear the warnings, the pilot returned his attention to the 'target' aircraft by pulling back on the control column to tighten the turn. As he did so, the aircraft's wings began to rock, indicating an imminent loss of control. Although the pilot attempted to recover the situation, after momentarily pausing with its wings level the aircraft pitched to the left and entered a flat spin. In the height available, recovery was impossible and the pilot ejected at 3,360 feet.

Aircraft Damage

7. The aircraft was destroyed by the impact.

Salvage Operation

8. The Jaguar is not fitted with an Accident Data Recorder (ADR) and although the pilot was full and frank in his evidence, without an ADR the Board could not substantiate his account. As a result, in order to confirm XZ108's configuration and serviceability at the time of impact, the aircraft wreckage had to be recovered.
9. The salvage operation went smoothly with the wreckage arriving at RAF Coltishall for analysis on 4 October 1998.

Investigation

10. From their investigations, the Board concluded that the aircraft had been serviceable at the time control was lost. The Board deduced that loss of control occurred because the aircraft had exceeded the prescribed limits for its configuration and fuel distribution.
11. The recovery attempt had been unsuccessful either because the right hand turn the aircraft was flying had caused some degree of side-slip or because the pilot had not been firm enough with the control column. Either of these could lead to an unsuccessful recovery.

Safety Recommendations

12. The Board made a number of recommendations, the first of which was that all Jaguar aircraft be fitted with an ADR. They also recommended a review of the advice given to Jaguar pilots on recovering from a loss of control, as well as a review of their annual training syllabus.