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AIRCRAFT ACCIDENT TO ROYAL AIR FORCE LIGHTNING F6 XS920

Date:	13 July 1984
Parent Airfield:	RAF Binbrook
Place of Accident:	25 km North of Hemslingen, Federal Republic of Germany
Crew:	One pilot
Casualties:	Pilot killed

CIRCUMSTANCES

1. Lightning XS920 was detached to Germany to take part in the NATO Tactical Leadership Programme (TLP). On the morning of 13 July 1984, it took off as the lead aircraft of a pair of Lightnings to simulate attacks against a four aircraft formation of USAF A-10s. The A-10s were to manoeuvre within clearly defined limits to avoid these attacks.
2. Once airborne, the Lightnings were vectored by ground control towards the A-10 formation. The A-10s were flying as two pairs about 10 nm apart and a tail-chase developed as the Lightnings approached the rear pair A-10s. When the Lightnings had closed to approximately 1 nm behind the two A-10s they were sighted by the A-10 pilots, who then flew two 90° turns to the right. Lightning XS920 was seen to attempt an attack on one of the A-10s before disengaging. The two A-10 pilots, having seen Lightning XS920 disengage, turned through 180 degrees to continue on their original track. At the same time, Lightning XS920 turned back towards the A-10s with the result that it was almost head-on to the left hand A-10, at a range of 12000 ft, slightly high, but descending on a collision course. The left hand A-10 made two heading changes and descended slightly to avoid the potential collision. However, at an estimated range of 1500 ft from the Lightning, the A-10 pilot considered that the danger of collision still existed so he turned hard right and descended. Lightning XS920 passed to the left of the A-10 and was then seen in a hard right turn, nose slightly low and at a relatively slow speed. Some 3seconds later, there was a bright blue flash as the aircraft flew through

some power cables, followed almost immediately by a fireball as the aircraft hit the ground. The pilot made no attempt to eject and was killed.

CAUSE

3. Examination of the wreckage revealed no evidence of pre-impact structural or system failure. Both engines had been selected to a high power setting and were operating at high RPM on impact. A check of the cockpit warning bulbs revealed that an engine 'Fire Warning' had been lit at impact but it was impossible to discover whether it had been triggered before the aircraft hit the power cables. There was no evidence of a pre-impact fire and it was concluded therefore that, while this 'Fire Warning' could have distracted the pilot at a critical moment, an aircraft fire was not the primary cause of the accident.

4. While analysing the final flight path of Lightning XS920, it was noted that the camouflage of the A-10 was particularly effective and that it was often difficult to tell if the aircraft was being viewed from head-on or tail-on. It was considered that these two factors could have contributed to the near collision between Lightning XS920 and the A-10. It was also noted that in avoiding the near collision, the A-10 had manoeuvred immediately in front of Lightning XS920 and thus it was thought possible that XS920 could have been affected by the wake turbulence of the A-10 manoeuvre. However, in the absence of any material evidence it was not possible to identify conclusively the final sequence of events leading up to the accident.

CLAIMS

5. Claims were received in respect of damage caused to 2 pylons and high voltage cables and also for crop damage and they have been settled for a total amount of DM 399,000 (approximately £100,000).

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