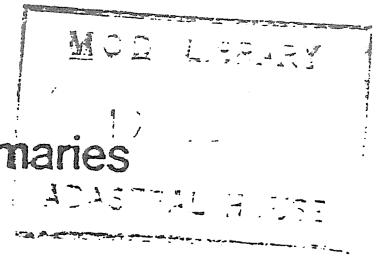




MINISTRY OF DEFENCE

Military Aircraft Accident Summaries



MAAS 17/85

15 August 1985

ACCIDENT TO ROYAL AIR FORCE JAGUAR GR1A XZ393 AND TORNADO GR1 ZA 408

Date: 12 July 1984

Parent Airfields: RAF Coltishall, RAF Honington

Place of Accident: 2 mile west of Sheringham, Norfolk

Crews: Total of 3. (2 pilots and one navigator)

Casualties: One major and one minor injury

CIRCUMSTANCES

1. On 12 July 1984 Tornado ZA408 took off from RAF Honington on a routine training sortie involving dive bombing at Wainfleet Range and low level navigation training. The range detail proceeded normally and the aircraft then flew to the north of the Norfolk Coast, aiming to cross the coast inbound to the west of Sheringham at the start of the planned navigational route.
2. Meanwhile, Jaguar XZ393, as the lead aircraft in a formation of Jaguars, took off from RAF Coltishall. The formation turned to the north-east and proceeded towards the coast. As the formation approached the coast, air traffic control at RAF Coltishall transmitted a warning that a contact was coasting in at Sheringham and turning south. This was Tornado ZA408. Almost immediately, the No 2 Jaguar pilot saw the Tornado and used his radio to call its position ahead of the formation. Unfortunately, this call was not transmitted on the frequency being used by the rest of the formation and so was not heard by the pilot of Jaguar XZ393. The pilot of Jaguar XZ393 searched the area ahead of his aircraft for contacts but saw nothing. He then transferred his lookout to the right of the aircraft's nose towards the area ahead of his No 2, who was closer to Sheringham, and whom he considered to be more at risk. Having searched the area ahead of his wingman, he again looked forward; immediately, he saw Tornado ZA408 filling the view from the front left canopy.
3. A few moments beforehand, Tornado ZA408 had commenced a right turn towards the start point of the navigational exercise. Both crew members concentrated their attention on visually acquiring that point. Having acquired it, the navigator concentrated on operating the equipment within his cockpit and the pilot concentrated his lookout to the right of the aircraft's nose, at the area beyond the start point. At the last moment the pilot was aware of Jaguar XZ393 as a grey shape in front of, and below, his port engine intake.

4. The Jaguar's port wing hit the Tornado's lower, left fuselage. After the impact, the Jaguar slewed violently to the left then quickly entered a descending spiral. The pilot ejected with the aircraft almost inverted, descending steeply and at a low altitude. The ejection sequence worked normally and the pilot landed in the sea. He boarded his dinghy and was rescued by helicopter some 20 minutes later. The aircraft crashed into the sea approximately one mile from the coast. On impact, the Tornado started to oscillate and emit flames from the left and rear fuselage. In the cockpit virtually all the warning indicators operated, including the 2 fire warning indicators. The pilot transmitted a brief emergency message; the cockpit filled with dense, acrid smoke and he gave the command; "Eject! Eject!". Both ejections were successful although the navigator suffered a compression fracture of a vertebra as a result of the ejection. The aircraft crashed in a field.

CAUSE

5. The weather, which at the time of the accident was excellent, was not considered a factor and there were neither distractions nor other aircraft in the area to influence events. In the final 12 seconds prior to the impact the 2 aircraft were approaching with a constant relative bearing of 11°, to the right of the Jaguar's nose, and to the left of the Tornado's nose. This approach angle placed the Jaguar behind the Tornado's windscreen strut and placed the Tornado behind the Jaguar's laser lock lights. Analysis of the pilots' lookout patterns in the 12 seconds prior to the collision revealed that neither was looking directly towards the other aircraft. The Tornado pilot was looking to the right of the aircraft's nose, at the area beyond the start point for the navigation exercise, and the Jaguar pilot, concerned for the safety of his wingman, was searching the area 45° - 60° right of the aircraft's nose, where he believed the Tornado would appear. It was considered that the accident happened because neither pilot saw the other aircraft in time to prevent a collision.

CLAIMS

6. Three claims were received in respect of personal injury and property damage. They have been settled for a total sum of £8,550.