MINISTRY OF DEFENCE

Military Aircraft Accident Summaries

6/89

August 1, 1989

AIRCRAFT ACCIDENT TO ROYAL AIR FORCE PHANTOM XV501

Date:	2 August 1988
Parent airfield:	RAF Wattisham
Place of accident:	North East of Mayenne, France
Crew:	2 (pilot and navigator)
Casualties:	Nil

CIRCUMSTANCES

1. On 2 Aug 88, 2 Phantoms were operating from the French Air Force base at Reims on an affiliation exercise with 2 Mirage F1s. They positioned for a practice intercept at 20,000 ft and manoeured for simulated missile shots. The pilot of XV501 flew a climbing right-hand turn to close on one Mirage, believing that his lack of evasion indicated that he was in difficulty. Once satisfied all was well, he overtook the Mirage on the left-hand side and crossed over it into a descending right hand turn to join up with his leader. During this manoeuvre, the pilot retarded the throttles and flew the aircraft into a 40° nose-down attitude with 50° of starboard bank at moderate 'g'. When passing 13,000 ft, the navigator warned the pilot that they were approaching their minimum height for the exercise of 10,500 ft, so the pilot rolled off most of the bank and increased the rearward stick movement to pull out of the dive. The navigator noted a speed of 280 kts and shortly afterwards at about 10,000 ft the aircraft flicked to the left departed from controlled flight.

2. The pilot immediately moved the control column centrally forward and noted the speed as 150 kts, but be did not check the angle of attack (AOA) gauge. He deployed the brake parachute and attempted to determine visually the direction of rotation, believing the aircraft was spinning. Deciding that the aircraft was spinning left, he applied full left aileron and noted an airspeed of 100 kts. The navigator called out heights and noted an IAS of less than 100 kts and a nose down attitude of 40°. The aircraft entered cloud between 10,000 ft and 7000 ft and on reaching 5000 ft, still in cloud, with the aircraft apparently not responding, the pilot ejected, quickly followed by the navigator. The aircraft crashed on the edge of a wood and both crew members landed safely in the trees with only slight injuries.

CAUSE

3. When the pilot attempted to recover from the diving turn, he believed that his speed was 450-500 kts. However, the navigator recalled a speed of 280 kts which was confirmed during a reconstruction of the flight path in the simulator. The pilot's belief that he had adequate margin for manoeuvre, resulted in him attempting to recover without monitoring either airspeed or AOA. This action caused the aircraft to have an excessive AOA, at which point a departure from controlled flight was very likely. The departure may have been triggered by slight right hand aileron or simply as a result of a g-stall. The pilot then carried out the incipient spin recovery drill, which, in all probability, recovered the aircraft to controlled flight. However, he failed to confirm this by checking the AOA and instead, continued with the full spin recovery drill by applying left aileron. This had the effect of inducing another departure from controlled flight and entry to a spin. The pilot then concluded that the aircraft was not responding to his recovery actions and ejected when the height became too low for recovery.

SUBSEQUENT ACTION

4. As a result of the crash the aircraft was totally destroyed. Disciplinary proceedings have been taken against the pilot of the aircraft.

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