



MINISTRY OF DEFENCE

Military Aircraft Accident Summaries

13/88

October 27, 1988

AIRCRAFT ACCIDENT TO ROYAL AIR FORCE PHANTOMS FG1 XT861 & XT872

Date: 7 September 1987
Parent Airfield: RAF Leuchars
Place of Accident: North Sea, 50NM East of Leuchars
Crew: Two in each aircraft
Casualties: Two slightly injured

CIRCUMSTANCES

1. A formation of 6 Phantoms was briefed to carry out air defence training after which they would undertake close formation practice in preparation for a forthcoming air display. The close formation would include flight with 5 of the aircraft in a St Andrews Cross close formation (see Figure 1). The sortie was briefed in detail, including individual crew responsibilities and emergency actions. For the St Andrews Cross, No 4 was briefed to fly co-height with Nos 1 and 2, with Nos 3 and 5 stepped down. The No 2 navigator was allocated the responsibility for collision avoidance between Nos 2 and 4 and was to advise his pilot if No 4 was too close.

2. The sortie proceeded as planned and eventually the leader called the formation into St Andrews Cross. The sixth aircraft acted as a 'whipper in' and advised some minor adjustments to the formation which then descended towards 2000 feet

to give the sixth aircraft room to work below cloud and give representative power settings. The leader manoeuvred the formation in a series of turns before entering a climbing turn to the left. At this stage, the Nos 2 and 4 navigators became aware that their aircraft were very close and each warned his pilot.

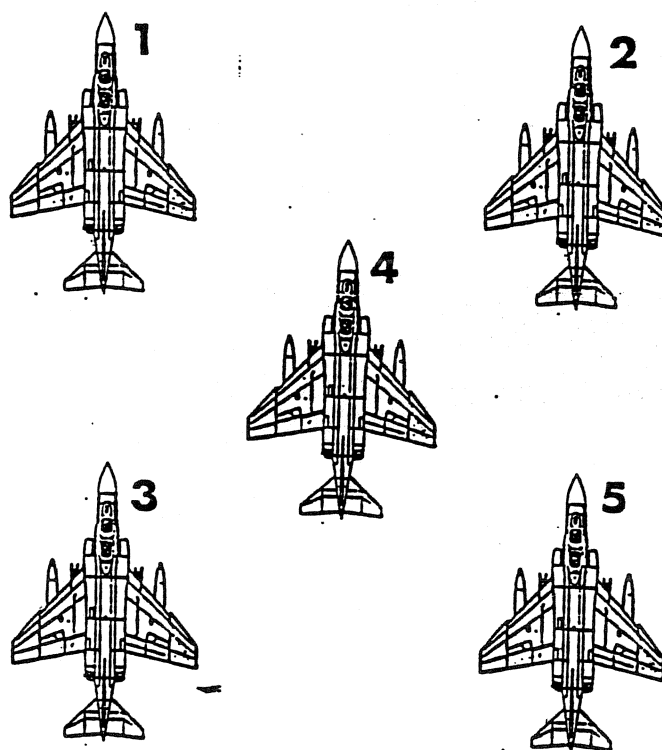


Figure 1

However, No 2's left stabilator hit the starboard underside of No 4's nose cone before scraping back along the nose and up No 4's intake ramp. Debris from the collision caused further damage to No 4 and some damage to No 5.

3. The No 2 aircraft separated from No 4, pitched up violently and barrelled left over the top of the formation. Unable to control the aircraft the No 2 crew initiated the aircraft ejection sequence which was completed successfully. Having ensured the safe ejection of the crew, the remainder of the formation, including No 4, recovered to base without further incident. The crew were later rescued, having sustained only minor injuries, by a Search and Rescue helicopter.

CAUSE

4. The investigation found that the primary cause of the accident was the decision to fly the St Andrews Cross formation with Nos 2 and 4 flying independently off the lead aircraft, on the same plane, with neither pilot having responsibility for collision avoidance.

SUBSEQUENT ACTION

5. The instructions and authorization for formation flying have been reviewed by HQ 11 Group and amended.

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