



MINISTRY OF DEFENCE

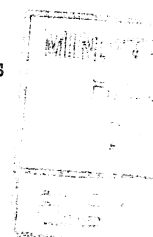
Military Aircraft Accident Summaries

4/89

27 June 1989

AIRCRAFT ACCIDENT TO ROYAL AIR FORCE PHANTOM XT860

Date: 20 April 1988
Parent Airfield: RAF Leuchars
Place of accident: 30 miles east of Leuchars
Crew: Two
Casualties: Two fatal



CIRCUMSTANCES

1. On 20 Apr 88 at 1526Hrs, Phantom XT860 was scrambled during exercise Elder Forest and followed 3 other Phantoms to its operating area over the sea some 30nm east of Leuchars. The weather in the area was acceptable with strato-cumulus down to 7000ft and sea fog/stratus with tops varying from 1000ft at 30nm to 200ft at 10nm from base. The visibility and horizon between layers was good.
2. Some 6 minutes after take off, the 3 Phantoms engaged a pair of targets. At about the same time, the crew of XT860 changed frequency to call their squadron operations in order to check the precise location of the operating area. Until about 1540, XT860 remained to the south-west of the other Phantoms before steadying on a northerly heading at about 4000 feet, when XT860 appeared to initiate a rapid descent to below radar cover. The crew called back on the operating frequency, routinely reporting their return to that frequency, having apparently missed the fact that an engagement had been initiated by the other

3 Phantoms. Nothing further was heard or seen of XT860 until wreckage was discovered more than three hours later.

3. It was not until 1830 that overdue action was taken because of confusion as to which fighter controller was working XT860. In the heat of a busy exercise scenario, attention was diverted from XT860 until 1800 when another Phantom reported an oil slick 23nm east of base. Correct overdue action was then initiated and an SAR Wessex was scrambled at 1840. He located the oil slick and debris, but no survivors were found. The search for survivors was called off at 2030 the next day.

CAUSE

4. The evidence suggested that XT860 crashed soon after its last known radio call at 1540 in a shallow wings level descent at a minimum of 300kts and at about 10° nose down attitude. Sufficient wreckage was recovered for an explosion or major structural failure to be discounted and there was no evidence to suggest any control malfunction or flight instrument failure. Furthermore, because the crew apparently had made no attempt to eject, it seemed unlikely that the pilot had lost control of the aircraft. There was no medical evidence to suggest incapacitation of the crew, although this could not be ruled out completely.

5. The pilot had recently demonstrated good instrument flying and excellent airmanship, but he might have been slow to realise that their steep descent would put them into the fog/stratus layer and in irretrievably close proximity to the sea. Indeed, some other pilots reported that the tops of the fog/stratus layer appeared deceptively similar to a medium level cloud bank and the haze layer on top of the patchy stratus, combined with the slope of the tops from the east, gave the strong impression of a false horizon. It seems likely, therefore, that the crew could have been misled into discounting the flight instruments by strong

sensory illusions in marginal low level weather. It is possible that the crew could have entered the haze layer in a rapid descent in the mistaken belief that they could maintain flight by visual reference. As the crew apparently had made no attempt to eject, they were almost certainly unaware of their proximity to the sea.

SUBSEQUENT ACTION

6. The hazards of sensory illusion have been re-emphasized to all fighter crews.

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