



MINISTRY OF DEFENCE

Military Aircraft Accident Summary

MILITARY AIRCRAFT ACCIDENT SUMMARY
PUBLISHED BY THE MINISTRY OF DEFENCE
AIR ACCIDENT INVOLVING ROYAL AIR FORCE
TORNADO FMk3 ZE858

Date:	21 October 1993
Parent Airfield:	RAF Leuchars
Place of Accident:	Stainmore, Cumbria
Crew:	1 pilot and 1 navigator
Injuries:	1 Slight

CIRCUMSTANCES

1. The aircraft was part of a defensive formation of 4 Tornado F3 fighter aircraft, escorting 2 Tornado GR1 fighter-bombers, on a training sortie in which they were pitted against 4 attacking Tornado F3s from another station. They were to operate in the UK Low Flying System in the Pennines region. Some 40 minutes into the sortie, the aircraft suffered a massive fuel leak which caused a severe loss of power to the left engine. As the pilot initiated recovery to a diversion airfield, he selected full reheat on both engines to climb away from low level. Unfortunately, this ignited the vapour trail of fuel that was leaking from the aircraft and caused fires, first in the right engine jet-pipe and within seconds, in the left engine jet-pipe. Unable to extinguish the fires, and with both engines shut down, the crew ejected successfully, having first pointed the aircraft in a direction to avoid the A66 main road; the aircraft crashed in moorland adjacent to the road.

CAUSE

2. The accident investigation determined that the fuel leak had occurred in the engine fuel system. A clamp used in the connection of a feed-pipe to an engine component had fractured. However, it was concluded that the primary cause of the accident

was the the selection of reheat, which caused the ignition of the leaking fuel and subsequent jet-pipe fires. The failure of the fuel feed-pipe clamp and the inability to extinguish the airborne fire were both considered as having contributed to this accident.

SUBSEQUENT ACTIONS

3. The RAF engineering support authority for the Tornado has issued regular inspection requirements, pending the result of a investigation by the makers of the nature into the failure of the V-band clamp. A review of in-service maintenance procedures for all similar types of clamps is under way.

CLAIMS

4. Claims totalling £616.87 have been settled in respect of this accident.