



MINISTRY OF DEFENCE

Military Aircraft Accident Summaries

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AIRCRAFT ACCIDENT TO ROYAL AIR FORCE

HARRIER GR3 XZ135

Date:	3 June 1984
Parent Airfield:	RAF Gutersloh, Germany
Place of Accident:	Aschaffenburg Airfield, Bavaria
Crew:	One Pilot
Casualties:	Major Injury to Pilot: Civilian Spectator Killed

CIRCUMSTANCES

1. On the afternoon of 3 June 1984, Harrier XZ135 was taking part in an air display at the North Bavarian airfield of Aschaffenburg. Towards the end of the display, the aircraft was brought to hover over the runway prior to a demonstration of the aircraft's ability to move backwards through the air. The manoeuvre had begun when, suddenly, an intense fire was seen to develop beneath the aircraft's fuselage in the region of the main undercarriage. The pilot heard a call from Air Traffic Control telling him of it, but he could not see the fire, nor was he aware of any unusual cockpit indications. Nevertheless, appreciating the urgency of the transmissions and, so as to reduce the hazard to the crowd, he decided to land the aircraft before ejecting. He rapidly initiated a descent to complete a rolling vertical landing on the runway, but was unable to counter a sudden increase in the rate of descent which resulted in the aircraft landing heavily on its nosewheel. The nosewheel leg sheared and the aircraft, still on fire, slid along the runway for a short distance before it veered onto the grass and came to rest. The pilot ejected safely shortly after touchdown, but unfortunately the trajectory of the ejection was such that the ejection seat fell at the rear of the crowd striking and killing a civilian spectator. The aircraft fire was subsequently extinguished by attendant fire crews, but not before the airframe had been so severely damaged that it was not economically repairable.

CAUSE

2. It was established conclusively that the water pump, a component in the water-injection system of the engine, had disintegrated and that debris had severed the adjacent fuel and hydraulic fluid pipes. The intensity of the ensuing fire was such that the pilot had little option but to abandon the aircraft, and his attempt to reduce any hazard to the crowd by placing the aircraft on the ground before ejecting was praiseworthy. It was most unfortunate that the dynamics of the ejection sequence led to the death of a spectator.

SUBSEQUENT ACTIONS

3. All RAF Harrier aircraft are now fitted with a containment shield around the water-injection pump, and modification action has been taken to reduce the likelihood of the pump running in a 'dry' condition which could cause the turbine to overspeed.

CLAIMS

4. Seventeen claims have been received to date and they are under consideration.

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