



MINISTRY OF DEFENCE
MILITARY AIRCRAFT ACCIDENT SUMMARY

**AIRCRAFT ACCIDENT TO ROYAL AIR FORCE PUMA
HC1 XW200**

AIRCRAFT: RAF Puma HC1 XW200

DATE: 9 April 2001

LOCATION: Near Kačanik, Southern
Kosovo

PARENT UNIT: 33 Squadron, RAF Benson

CREW: Three - pilot, navigator
and crewman

PASSENGERS: Four

FATALITIES: Two - pilot and navigator

INJURIES: One Major - passenger

Issued by: Directorate of Air Staff, Ministry of Defence, Northumberland Avenue, London, WC2N 5BP

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SYNOPSIS

1. On the afternoon of 9 April 2001, the crew of Puma XW200 were tasked to pick up a patrol at a location in mountainous terrain near the Kosovo/Macedonia border. Shortly after collecting the patrol, the aircraft collided with high trees and crashed. The pilot and the navigator were killed in the crash and a passenger sustained major injuries.

BACKGROUND

2. XW200 and its crew were assigned to Joint Helicopter Force (AGRICOLA) (JHF(A)) in Pristina, on detachment from 33 Squadron RAF. The primary role of the Puma detachment was to transport the Immediate Response Team to ensure that a medical response to incidents could be provided with minimum delay. Secondary tasking included routine Kosovo Force (KFOR) support missions.

CIRCUMSTANCES

3. On 9 April 2001, the crew of XW200 were tasked with four KFOR missions in Kosovo. Their third task was to pick-up a four-man patrol on deployment in mountainous terrain on the Kosovo/Macedonia border. At 1447, XW200 departed from JHF(A) Pristina, arriving at the Pick Up Point (PUP) just after 1505. By this time, light snow was falling but the in-flight visibility was still approximately 1000m. On its approach, the aircraft's Missile Warning System alarm falsely activated, triggering the release of some flares, as the Flare Dispenser selections had been inadvertently left at 'Arm' and 'Auto' during the pre-landing checks. One of these flares had ricocheted towards the patrol, and on landing it was discovered that a patrol member showed signs of scorching on his over-trousers. Although the soldier said that he was unharmed, the decision was taken to fly him, with the rest of the patrol, to the nearest medical facility, instead of the planned Drop Off Point.

4. Shortly after leaving the PUP, XW200 inadvertently entered low cloud. The pilot is reported as saying that he was transferring to instrument flight rules as he had lost all visual reference. In order to regain these, an attempt was made to reduce the aircraft's height. However, the aircraft was by now over terrain that fell sharply away, resulting in a descent of at least 1200ft. Soon after, the aircraft was pitched up sharply to avoid trees that momentarily came into view, and then a level attitude was re-selected. The navigator is reported as saying that the aircraft was descending, after which it hit some trees in a near-level attitude with little or no forward speed, and crashed. The impact point was 1400ft below the height of the PUP, and the flight had lasted about three minutes.

RESCUE OPERATION

5. The crewman was rendered unconscious by the impact and the remaining passengers suffered various degrees of injury. Three of the passengers were able to leave the aircraft wreckage before helping the remaining passenger and crewman to get out. The

injured were given initial medical treatment by medics from the Polish/Ukrainian Battalion before they were transported to medical facilities elsewhere in Kosovo.

INVESTIGATION

6. The Board's ability to accurately reconstruct the sequence of events leading to the crash was hindered by the fact that no external eye-witnesses to the crash were forthcoming and by the lack of evidence that an Accident Data Recorder (ADR) or Cockpit Voice Recorder (CVR) might have provided. Assistance in determining the sequence of events prior to the crash was sought from the Air Accidents Investigation Branch who conducted an examination of the engines. Data from the navigation system also helped. The Board concentrated on mechanical failures, and aerodynamic, meteorological, training, and human factors.

7. The Board was able to discount wirestrike, birdstrike, icing, enemy action, drive train, structural and instrument failures as factors in the accident. Also, the Board considered that the weather was suitable for the flight, albeit that careful route selection was required due to the presence of bad weather in certain areas of the mountains. Instead, the Board considered that the operational tempo, the rapid deterioration in meteorological conditions, the level of crew co-operation, the guidance given to crews in Kosovo on the need to avoid Instrument Meteorological Conditions (IMC) at all times, the lack of an icing clearance on the Puma, and the apparent lack of a robust bad weather plan following inadvertent entry into IMC, were all contributory factors in the accident. As the Board opined that control malfunction and engine performance were unlikely to have been factors in the accident, it concluded that XW200 crashed because its rate of descent was not halted sufficiently before the aircraft hit trees, whilst attempting to recover from inadvertent entry into low cloud.

SAFETY RECOMMENDATIONS

8. The Board recommended:

- a. A number of modifications to the Puma, including the provision of an ADR and CVR; provision of an icing clearance; more robust weapon mounts and stowage, and the introduction of engine anticipators; and that
- b. A pre-Kosovo training package should be introduced, with Theatre-specific flying orders produced to cover inadvertent IMC procedures.

