



MINISTRY OF DEFENCE

Military Aircraft Accident Summaries

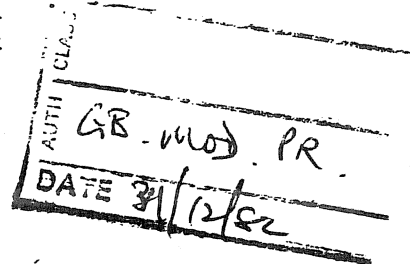
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AIRCRAFT ACCIDENT TO ROYAL AIR FORCE BUCCANEER MK S2B XW537

Date: 23 September 1981
Parent Airfield: RAF Honington
Place of Accident: RAF Wattisham
Crew: Two
Casualties: One major injury



CIRCUMSTANCES

1. On 23 Sept 81 an experienced pilot who was new to the Buccaneer flew his second familiarisation sortie on type from RAF Wattisham. For this he was crewed with an OCU staff navigator who was well qualified to supervise the pilot from the rear seat. The briefed sortie went according to plan and XW537 was recovered to Wattisham from a radar approach to carry out practice circuits and landings. The first circuit and roller landing was uneventful. All went well on the second circuit until about half way round the final turn onto the extended runway centre line. At this stage the pilot found it necessary to increase his angle of bank in order to line up with the runway. The Airstream Direction Detector (ADD) audio tone signal changed from a correct steady note to a steady/low tone, indicating that the airspeed was slightly too low. The pilot increased engine power to compensate for this, maintained his descending turn, and selected a small amount of additional airbrake. The navigator refrained from commenting on the ADD low signal, anticipating a return to the correct steady signal as the pilot rolled out on the extended centre line. As he began to roll out however, the pilot realised that he was below his desired approach path. The ADD audio signal changed to a rapid/low note indicating that the angle of attack was now getting dangerously high. The navigator commented on this and the pilot again applied power to correct. However, the nose of the aircraft yawed to the left and the pilot instinctively attributed this to a failure of the port engine. He selected full power and corrected the yaw with rudder. The aircraft responded by momentarily rolling to a wings level nose high attitude before rolling and yawing again to the left. At this stage the navigator realized that the aircraft was out of control and ejected. Moments later the pilot followed suit. Both ejections were successful and the aircraft crashed in open farm land about 1 nm short of the runway. The pilot escaped injury but the staff navigator suffered a broken arm and leg.

CAUSE

2. A Board of Inquiry assisted by AIB carried out an exhaustive investigation of the wreckage in an attempt to identify any technical failure which could have caused or contributed to the accident; they were unable to do so. In particular, it was established that no engine

or structural failure occurred prior to impact. Both the evidence of the crew and the state of the wreckage convinced the Inquiry that the aircraft had been in a deep stall in the final stages of flight and it was concluded that this was precipitated by mis-landing during the latter part of the descending turn onto the runway centreline. The crew ejected at a very late stage when the accident was inevitable and were extremely fortunate to survive.

3. The Buccaneer is unique in the RAF in that there is no dual control trainer variant. Pilots convert to type by first flying in a dual control Hunter equipped with a Buccaneer flight instrument display and are then talked through their first flight by a Qualified Flying Instructor (QFI) who occupies the rear seat. Most of the subsequent conversion and role training flying is carried out with a navigator occupying the rear seat. All Buccaneer navigators are given specialised training to equip them to monitor the pilot's flying and to give advice on handling aspects if necessary. Additionally, staff navigators on the Buccaneer Operational Conversion Unit (OCU) who are required to fly with pilots in the type conversion phase, complete a short course to acquaint them with particular problems likely to be encountered in the early sorties and the actions required to overcome them.

CLAIMS

4. A claim has been submitted in respect of damage to a wheat field. It has not yet been settled but is provisionally estimated at £3,500 of which £585 has been paid.

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