



# MINISTRY OF DEFENCE

## Military Aircraft Accident Summaries

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### AIRCRAFT ACCIDENT INVOLVING ROYAL AIR FORCE BUCCANEER S2B XV345

Date: 7 February 1980  
Parent Airfield: RAF Laarbruch, West Germany  
Place of Accident: Nellis Range, Nevada, USA  
Crew: Pilot and Navigator  
Casualties: Crew (2) killed

#### CIRCUMSTANCES

1. Buccaneer XV345 was detached to Nellis AFB in the USA to participate in Exercise Red Flag. On 7 February 1980 it was flown by the lead crew of an attack mission. The sortie was unremarkable until shortly before the first target when, whilst in a turn with some 50° of bank applied, XV345 pitched up and rolled to the right and the entire starboard wing was seen to be missing. The aircraft then tumbled and broke up before crashing; the complete sequence from wing separation to final impact lasted only some 9 seconds. The pilot attempted to eject but the aircraft was at a height and in an attitude outside the operating parameters of the ejection seat and he was killed; the navigator did not eject and was also killed. The aircraft was destroyed.

#### CAUSE

2. Examination of the detached starboard wing revealed that there was a fatigue crack in part of the main spar; subsequent calculations showed this so weakened the structure that a flight load of five or six 'g' would have been sufficient to break it. Specialist meteorological evidence indicated that severe but localised turbulence could have been present in the area of the accident. This was not apparent to the crews flying the other aircraft in the formation but none of them followed exactly XV345's track immediately prior to the accident. It is probably therefore, that XV345 encountered severe local turbulence causing an acceleration which, when added to the acceleration experienced in the turn, was sufficient to break the weakened spar.

SUBSEQUENT ACTIONS

3. As a result of this accident all Buccaneers were inspected for fatigue cracking; some aircraft were found to be similarly cracked and peace-time flying of the Buccaneer was therefore temporarily suspended. A thorough inspection of all Buccaneer spars revealed that, whilst some were crack free, others were affected by varying degrees of cracking. Those with minor damage were easily repaired and some with more severe cracking are being repaired by transplanting inner wing sections. Those aircraft that have been repaired have been returned to service; as a precaution, however, they are being regularly inspected to ensure that new fatigue cracks do not develop.

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