

HS 748 2B, G-EMRD

AAIB Bulletin No: 5/97 Ref: EW/G97/02/09 Category: 1.1

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| Aircraft Type and Registration: | HS 748 2B, G-EMRD |
| No & Type of Engines: | 2 Rolls Royce Dart Mk 536-2 turboprop engines |
| Year of Manufacture: | 1984 |
| Date & Time (UTC): | 22 February 1997 at 0930 hrs |
| Location: | Ronaldsway, Isle Of Man |
| Type of Flight: | Public Transport |
| Persons on Board: | Crew - 4 - Passengers - 40 |
| Injuries: | Crew - None - Passengers - None |
| Nature of Damage: | Minor dents to the wing of HS 748 and major damage to fin and rudder of a parked PA 23, G-CALL |
| Commander's Licence: | Airline Transport Pilot's Licence |
| Commander's Age: | 64 years |
| Commander's Flying Experience: | 21,650 hours (of which 863 were on type) Last 90 days - 92 hours Last 28 days - 31 hours |
| Information Source: | Aircraft Accident Report Form submitted by the pilot of the HS 748, report of an investigation carried out by the airport authority and telephone enquiries by the AAIB |

History of the flight

The HS 748, G-EMRD had arrived at Ronaldsway the previous night and was parked on the apron next to a set of port cabins and the Shell depot. Two light aircraft, a Beech 24 and a PA 23 Aztec, G-CALL were parked to the left rear of the HS 748 adjacent to the grass in the area designated for light aircraft parking. On the morning of the accident, the passengers were boarded with the aircraft remaining in its overnight parking position; the operator had not requested its repositioning onto one of the designated stands (see Figure 1). In order to leave the apron it was necessary for the HS 748 to turn to its left through 180° and so, at briefing prior to departure, the ATC officer advised the crew that he would send marshalls to the aircraft to assist in manoeuvring. When the crew of the HS 748 called for start clearance they were advised by the tower that the marshalls were already on their way from the Fire Station on the opposite side of the airport.

Two firemen arrived after the engines had been started and they positioned themselves as shown in the area of detail shown in Figure 1. The aircraft commenced a tight turn to the left, receiving throughout the all-clear signal from the marshalls. It was apparent to the crew that the wing-tip clearance was minimal, but as they were receiving an all-clear signal they continued with the turn. During the turn the HS 748 right wing tip struck the fin of the parked PA 23. Damage to the wing tip was minimal but the PA 23 sustained considerable damage with a portion of its fin becoming detached and being blown beneath the HS 748.

The second marshaller had positioned himself in such a way that he was some distance away from the parked PA 23 and by the time he realised that the clearance was insufficient, he was to the rear of the HS 748 and to the extreme right of the field of view of the first officer. He attempted to inform the crew of the inadequate clearance by dropping his arms to his sides but by this time the collision had already occurred. A passenger in the HS 748 confirmed that at the time of the collision the marshaller was still giving the all-clear signal.

Safety considerations

The airport authority carried out an investigation into the circumstances of this accident and concluded that the accident might have been avoided if the PA 23 been parked somewhat closer to the edge of the apron, as had been requested by ATC. When despatched to assist the HS 748, the airport marshalls had had little time in which to assess the situation and had positioned themselves inappropriately so that their ability to provide best guidance to the crew was reduced.

A tight left turn always presents the captain of an aircraft with a difficult situation when manoeuvring in close proximity to parked aircraft such as the two light aircraft in this instance. The UK AIP entry for the Isle of Man (AGA 2-18-6) Aircraft Parking and Docking Chart contains the following warning: 'Pilots of aircraft which are self-parking in this area should exercise extreme caution in respect of wing-tip clearance. The services of a marshaller are available on request.' Although this warning was observed the airport marshalls were not given sufficient time to take up the optimum position for marshalling. The aircraft commander should not continue to taxi if he considers that the positioning of the marshalls is inappropriate for them to assess the clearance accurately and for him or his crew to be able to observe and react to their signals. The aircraft commander assessed the cause of the accident as his reliance on the marshalls, who had been tasked specifically to assist him out of a tight parking position. He also states that in future he will arrange for his aircraft to be moved whenever there is doubt about adequate clearance for self positioning.