Aviation Safety Investigation Report 199603817

Short Bros Pty Ltd
Shorts 360
Hughes Helicopters
500 "C"

21 November 1996

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Aviation Safety Investigation Report

199603817

The Bureau did not conduct an on scene investigation of this occurrence. The information presented below was obtained from information supplied to the Bureau.

Occurrence Number: 199603817 **Occurrence Type:** Incident
Location: 4km S Mackay, Aerodrome
State: QLD **Inv Category:** 4
Date: Thursday 21 November 1996
Time: 0920 hours **Time Zone** EST
Highest Injury Level: None

Aircraft Manufacturer: Short Bros Pty Ltd
Aircraft Model: SD360-300
Aircraft Registration: VH-SUL **Serial Number:** SH3752
Type of Operation: Air Transport Low Capacity Passenger
Damage to Aircraft: Nil
Departure Point: Proserpine QLD
Departure Time: 0901 EST
Destination: Mackay QLD

Aircraft Manufacturer: Hughes Helicopters
Aircraft Model: 369HS
Aircraft Registration: VH-AKV **Serial Number:** 250712S
Type of Operation: Air Transport Low Capacity Passenger Low Capacity Passenger
Damage to Aircraft: Nil
Departure Point: Hay Point QLD
Departure Time:
Destination: Walkerston QLD

Approved for Release: Thursday, June 5, 1997

FACTUAL INFORMATION

The pilot of a Shorts (SD3-60) aircraft inbound to Mackay aerodrome from Proserpine at 5,000 ft, requested runway 14. Runway 32 was the duty runway being broadcast on the automatic terminal information service. The aerodrome controller (ADC) instructed the pilot to descend to 2,000 ft and advised him that the downwind on runway 14 was 13 kts. This exceeded the aircraft's downwind limitation of 10 kts and the pilot requested to be advised of the wind when the aircraft was closer to the aerodrome. The ADC advised the pilot to expect runway 14 and to report at 10 NM.

The pilot of a Piper (PA28) aircraft, having completed a session of circuit training, requested further circuits on runway 32. After the PA28 became airborne, the instructor in the aircraft discussed the conduct of a simulated radio failure with the ADC. The ADC cleared the pilot of the PA28 to make a touch and go, and instructed him to make a right circuit. The instructor then commenced the radio failure exercise.

The pilot of a Hughes (H369HS) helicopter requested a clearance to transit the control zone. The H369HS had departed Hay Point (8 NM south-east of Mackay) for Walkerston (7 NM west of Mackay). The pilot was instructed to track as requested at not above 1,000 ft. The intended track of the helicopter passed approximately 2.5 NM to the south-south-west of the aerodrome.

The pilot of the SD3-60 reported at 10 NM and the ADC advised him that runway 14 was not available due to circuit traffic and to track for a left downwind to runway 32. This required the aircraft to be tracked to the south-west of the aerodrome. The pilot maintained 2,000 ft and tracked for left downwind. The PA28 was on right base runway 32 and was approved to land using light signals in accordance with the "no radio" procedures. The tower co-ordinator operated the signal lamp to assist the ADC. After landing, the instructor of the PA28 advised the ADC that the training was finished.

The SD3-60 entered left downwind and the ADC cleared the pilot to make a visual approach. The issue of a visual approach clearance enabled the pilot to descend, as required, from the last acknowledged level of 2,000 ft to the threshold of the assigned runway. The track and descent of the SD3-60 passed through the level, and close to the track, of the H369HS. While two or more aircraft are in conflict, air traffic control was required to ensure that one of the forms of separation was being applied. Separation can be applied by the use of either radar, visual, vertical, lateral or longitudinal standards. There was no radar display in the tower and the ADC was thus required to use one of the other forms of separation. The ADC did not have the H369HS in sight and there was no vertical, lateral of longitudinal separation being applied.

The ADC issued a landing clearance to the pilot of the SD3-60 when the aircraft was south of the aerodrome. The ADC requested the pilot of the H369HS to report position and was advised that the helicopter was approaching the mouth of a creek which was 2.5 NM south-east of the aerodrome; on final for runway 32. The ADC instructed the pilot of the SD3-6, which was on left base, to make a right orbit. The orbit was intended to maintain separation between the SD3-60 and the H369HS. The pilot of the helicopter reported sighting the SD3-60 and was then instructed by the ADC to pass behind that aircraft. There was a breakdown of separation.

ANALYSIS

The ADC became distracted by the request for additional circuits and the no radio exercise for the PA28. He did not sight the helicopter and did not apply visual separation prior to approving the pilot of the SD3-60 to make a visual approach.

The ADC could have used the tower co-ordinator to assist in sighting the helicopter prior to the SD3-60 being cleared to make a visual approach. This may have enabled the helicopter to be sighted in sufficient time for the application of either a visual or an alternative separation procedure.

SIGNIFICANT FACTORS

1. The ADC did not sight the H369HS.

2. The ADC did not request assistance to sight the H369HS.

3. The ADC did not apply a separation standard between the SD3-60 and the H369HS.