

**Aviation Safety Investigation Report  
199701495**

**Piper Aircraft Corp  
Chieftain  
de Havilland Canada  
Twin Otter**

**07 May 1997**

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**Occurrence Number:** 199701495      **Occurrence Type:** Incident  
**Location:** 20km SW Aeropelican, (ALA)  
**State:** NSW      **Inv Category:** 4  
**Date:** Wednesday 07 May 1997  
**Time:** 1802 hours      **Time Zone:** EST  
**Highest Injury Level:** None

**Aircraft Manufacturer:** de Havilland Canada  
**Aircraft Model:** DHC-6 SERIES 320  
**Aircraft Registration:** VH-KZQ      **Serial Number:** 759  
**Type of Operation:** Air Transport Domestic Low Capacity Passenger Scheduled  
**Damage to Aircraft:** Nil  
**Departure Point:** Aeropelican NSW  
**Departure Time:** 1756 EST  
**Destination:** Sydney NSW

**Aircraft Manufacturer:** Piper Aircraft Corp  
**Aircraft Model:** PA-31-350  
**Aircraft Registration:** VH-HVA      **Serial Number:**  
**Type of Operation:** Air Transport Domestic Low Capacity Passenger Scheduled  
**Damage to Aircraft:** Nil  
**Departure Point:** Sydney NSW  
**Departure Time:** 1742 EST  
**Destination:** Maitland NSW

**Approved for Release:** Tuesday, June 9, 1998

## FACTUAL INFORMATION

A Piper Chieftain departed Sydney for Maitland via Kamba, a position located 30 NM north-east of Sydney, on climb to 5,000 ft. The Chieftain was on an Instrument Flight Rules (IFR) flight and the pilot-in-command's (PIC) estimate for Kamba was 1756 EST. Kamba was the position where the Chieftain would leave controlled airspace (CTA) and the PIC would transfer from the air traffic control (ATC) frequency to the flight service (FS) frequency.

At 1753 a DeHavilland Twin Otter taxiied at Aeropelican for a IFR flight to Sydney via the Calga Non Directional Beacon (NDB) navigation aid at a planned altitude of 6,000 ft. Calga NDB was located approximately 32 NM north of Sydney and 12 NM to the west of Kamba. The Twin Otter's intended track crossed the Chieftain's planned track north of Kamba. The Twin Otter departed at 1756 and was transferred to ATC at 45 NM from Sydney. While the aircraft was in non-controlled airspace the PIC continued to monitor the FS frequency on a second radio.

The weather in the area north of Sydney was such that conditions were Instrument Meteorological Conditions (IMC). The Chieftain was approximately three minutes ahead of the PIC's estimate for Kamba due to a strong tailwind. The PIC transferred to the FS frequency at 30 NM from Sydney and reported that the aircraft was maintaining 5,000 ft. The FS operator did not acknowledge the report and the PIC of the Chieftain did not confirm that FS had received this report.

At 1759 the PIC of the Chieftain reported to the FS operator that the aircraft was leaving 5,000 ft on descent into Maitland. The FS operator acknowledged the report. Shortly after, the FS operator gave the crews of both aircraft the relevant traffic information on their flights. The PIC of the Twin Otter called the PIC of the Chieftain and reported passing 5,300 ft on climb. The PIC of the Chieftain sighted the Twin Otter off to his right and about 400 ft above the level of his aircraft but was unable to assess the distance between the aircraft. The crew of the Twin Otter did not sight the Chieftain. The investigation did not ascertain the actual vertical and lateral distance between the aircraft.

The FS operator was required to give traffic information to the crews of IFR flights about other IFR flights. The Manual of Air Traffic Services detailed criteria to be used in assessing whether traffic information was required to be advised. The FS operator had correctly assessed that traffic information would need to be issued to the crews of both aircraft because of their respective tracks. A local instruction required FS operators to give traffic information to the appropriate ATC sector for relay to crews of aircraft before leaving CTA. In this instance the FS operator believed he would have sufficient time to give the traffic information to both crews once they were on his frequency. He also thought that the PIC of the Chieftain may request a climb to 7,000 ft or an amended track direct to the destination, which would amend the traffic information.

## ANALYSIS

The FS operator advised the crew of the Twin Otter to contact ATC at 45 NM Sydney which was prior to the crossing point of the tracks of the two aircraft. Traffic information on the Chieftain should have been given to the crew prior to their being instructed to change to the ATC frequency.

The FS operator believed that the level or route of the Chieftain might change and this aspect probably caused him to delay giving the traffic information to the crew of the Twin Otter. Subsequently, the FS operator either forgot or became distracted with other actions such that the information was not advised until the aircraft were in close proximity.

The reason for the FS operator not hearing the initial report from the PIC of the Chieftain could not be ascertained. The PIC of the Chieftain should have continued to report to the FS operator until an acknowledgement was obtained. A lack of acknowledgement may mean that either the aircraft's or the ground operator's radio was unserviceable. The PIC may have been distracted by the weather or some aspect of the aircraft's operation and consequently did not appreciate that his report had not been acknowledged.

## SIGNIFICANT FACTORS

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1. The FS operator did not request ATC to give traffic information to the PIC of the Chieftain prior to the aircraft leaving CTA.
2. The FS operator did not give traffic information to the Twin Otter crew prior to the aircraft entering an area of conflict.
3. The FS operator did not hear the initial report by the PIC of the Chieftain.
4. The PIC of the Chieftain did not ensure that his report was acknowledged by the FS operator.

