

**Aviation Safety Investigation Report
199700508**

**Cessna Aircraft Company
310
Cessna Aircraft Company
402C**

29 January 1997

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NOTE: All air safety occurrences reported to the ATSB are categorised and recorded. For a detailed explanation on Category definitions please refer to the ATSB website at www.atsb.gov.au.

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:	199700508	Occurrence Type:	Incident
Location:	49km NNW Darwin, VOR		
State:	NT	Inv Category:	4
Date:	Wednesday 29 January 1997		
Time:	1350 hours	Time Zone	CST
Highest Injury Level:	None		

Aircraft Manufacturer:	Cessna Aircraft Company		
Aircraft Model:	402C		
Aircraft Registration:	VH-NMQ	Serial Number:	402C0451
Type of Operation:	Air Transport Domestic Low Capacity Passenger Scheduled		
Damage to Aircraft:	Nil		
Departure Point:	Bathurst Island NT		
Departure Time:	1345 CST		
Destination:	Darwin NT		

Aircraft Manufacturer:	Cessna Aircraft Company		
Aircraft Model:	310		
Aircraft Registration:		Serial Number:	
Type of Operation:	Miscellaneous Unknown		
Damage to Aircraft:	Nil		
Departure Point:	Unknown		
Departure Time:			
Destination:	Unknown		

Approved for Release: Wednesday, November 26, 1997

FACTUAL INFORMATION

On departure from Bathurst Island for Darwin the pilot of the Cessna 402 (C402) transmitted a broadcast on the local common traffic advisory frequency (CTAF). He then contacted Darwin Approach and requested and was given an airways clearance to track direct to Darwin at 3,000 ft.

Shortly after levelling off at the assigned cruising altitude the C402 was passed by opposite-direction traffic identified as a Cessna 310 (C310). The pilot of the C402 estimated that there was approximately 200 ft lateral and no vertical separation between the aircraft.

At the time of passing, the aircraft were approximately 1.5 NM from the control zone boundary and still within the Bathurst Island CTAF area. Shortly after the aircraft passed, the pilot of the C402 was informed by Air Traffic Control (ATC) of opposite-direction traffic. The information provided by ATC indicated that the C310 was at 4,000 ft and had left controlled airspace and that the aircraft's transponder had been switched off. The pilot of the C402 had not heard any radio broadcasts from the pilot of the C310.

In discussions with the pilot of the C402, the Bureau learned that there had been several similar unreported occurrences at Bathurst Island. The pilot's comments were consistent with information derived from the Bureau's database relating to the operation of aircraft including high capacity air transport aircraft in the MTAF and CTAF environments throughout Australia.

The Bathurst Island CTAF is unique in that the southern boundary adjoins and lies beneath the Darwin Control Zone. Traffic departing from Darwin have little time in which to change frequencies and make the required calls when notified by ATC of leaving controlled airspace. This difficulty in notification adds to the problem of traffic separation as these aircraft are not notified to traffic that may be inbound to Darwin. Although there may be vertical separation between the aircraft, this is not always the case, as was evidenced in this occurrence.

SAFETY ACTION

The investigation of this occurrence identified two aspects of the operation of aircraft outside controlled airspace, which are currently the subject of safety deficiency analysis by the Bureau. The lack of guidance material for air traffic services personnel to provide timely traffic information had been raised during previous investigations. Similarly, the use of inappropriate self-separation procedures by pilots operating in Class G airspace, such as CTAFs, had also been identified as a deficiency.

The results of this investigation will be used in a broader analysis of these safety deficiencies.

Darwin ATC now request that aircraft departing the Control Zone leave their transponders on so that they may provide a better radar return in an area that has a poor radar coverage, and adequate traffic information can then be passed to other traffic.

As a local safety action, the operator involved implemented visual tracking procedures for use when operating within the Bathurst Island CTAF. These visual tracking procedures should ensure that this operator's aircraft, arriving and departing from the island have sufficient lateral separation.

