

**Aviation Safety Investigation Report
199503906**

**Cessna Aircraft Company
402
Fairchild Industries Inc
Metro 23**

15 November 1995

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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:	199503906	Occurrence Type:	Incident
Location:	72km S Armidale, Aerodrome		
State:	NSW	Inv Category:	4
Date:	Wednesday 15 November 1995		
Time:	1147 hours	Time Zone	EST
Highest Injury Level:	None		

Aircraft Manufacturer:	Fairchild Industries Inc		
Aircraft Model:	SA227-DC		
Aircraft Registration:	VH-DMI	Serial Number:	DC-839B
Type of Operation:	Air Transport Domestic Low Capacity Passenger Scheduled		
Damage to Aircraft:	Nil		
Departure Point:	Sydney NSW		
Departure Time:	1110 EST		
Destination:	Armidale NSW		

Aircraft Manufacturer:	Cessna Aircraft Company		
Aircraft Model:	402		
Aircraft Registration:	VH-MWG	Serial Number:	4020154
Type of Operation:	Non-commercial Pleasure/Travel		
Damage to Aircraft:	Nil		
Departure Point:	Archerfield QLD		
Departure Time:			
Destination:	Woollongong NSW		

Approved for Release: Tuesday, May 7, 1996

Factual Information

VH-MWG had departed Armidale for Wollongong and was maintaining 10,000 ft outside controlled airspace. The crew reported at Armidale east at 1244 ESuT, with an estimate for Mount Sandon at 1303. The Flight Service Officer (FSO) passed conflicting traffic information on VH-DMI to the crew of MWG.

DMI had departed Sydney for Armidale and was maintaining flight level (FL) 190 in controlled airspace. The crew reported their position to sector control as passing West Maitland at 1228, with an estimate for Armidale of 1258.

At 1233, the sector controller passed the DMI position report to the FSO and coordinated the frequency transfer as vacating FL 190. The FSO considered that, as DMI would need to descend 9,000 ft prior to leaving controlled airspace, there was sufficient time to pass traffic information on MWG after the crew of DMI had transferred to her frequency.

At 1247, the crew of DMI requested descent into Armidale and were cleared to leave control area on descent by the sector controller. The crew commenced descent a few seconds later but did not report leaving FL 190.

Although the altitude readout for DMI was displaying correctly on the radar screen, the controller did not notice that DMI had left FL 190 and did not instruct the crew to change to the flight service frequency.

At 1251, the FSO contacted sector control to find out the actual position of DMI. She had realised that the time by which she had expected the crew to call had expired and the traffic information on MWG had still not been passed.

The controller then looked at the radar screen specifically to find DMI and noticed that the aircraft was descending through FL120. He also noticed a conflicting aircraft 4 NM ahead and on a reciprocal track and informed the FSO.

The FSO confirmed that the conflicting aircraft was the one she wanted to pass as traffic to the crew of DMI. During this discussion, the sector controller instructed the crew of DMI to transfer to flight service on 122.1 Mhz. He did not pass the traffic information at that time, but did pass traffic a few seconds later. However the crew of DMI had already changed frequency prior to those instructions.

As they approached 11,000 ft, the crew of DMI realised that they needed to contact flight service prior to leaving controlled airspace and initiated a call to sector control. This call was made at the same time as the sector controller had initiated his call to DMI and consequently neither party heard the other transmit.

As they passed 10,800 ft, the crew of DMI sighted MWG and adjusted their flight path to pass behind that aircraft.

Radar analysis indicates that the aircraft passed by 500m horizontally, with no vertical separation.

Analysis

The sector controller normally waited for a pilot to report leaving a level before instructing the crew to change frequency. In this case, the crew did not make this required report and the reminder to the controller was lost. At the same time, the controller became occupied with other tasks and did not notice that DMI was on descent.

The crew of DMI were required to leave FL 190 within one minute of the instruction from sector control and to report leaving that level. The controller is required to check that the aircraft has commenced its descent if no such report is received. This check may be carried out by reference to radar information.

The FSO had correctly calculated the confliction between DMI and MWG and needed to pass traffic information to each crew. However, she was cognisant of the historical adversity that air traffic controllers had to passing such information on control frequencies. She considered that 9,000 ft of descent gave sufficient time to allow the crew of DMI to contact her, receive the traffic advice and make any operational decision. Therefore the FSO decided not to ask the sector controller to pass the traffic information on MWG to the crew of DMI.

The FSO had only recently obtained her rating on the FIS 3 circuit and, although instructions on the passing of traffic information to aircrew via air traffic control existed, she was not familiar with them and had not had them made available to her during training. These instructions were contained in the Temporary Local Instructions book which was not readily available for officer reference.

Findings

1. The Temporary Local Instructions book was not readily available for FSO reference.
2. The training of FSOs at Sydney did not adequately cover temporary local instructions in relation to the passing of traffic information.
3. The FSO correctly calculated the need for traffic information to be passed to the crews of MWG and DMI.
4. The FSO did not pass traffic information to the crew of DMI at the earliest possible opportunity.
5. The crew of DMI did not report leaving FL 190.
6. The sector controller did not check whether the crew of DMI had commenced descent after no report had been received within one minute of issuing the clearance.
7. The sector controller did not notice that DMI was on descent.
8. The sector controller did not instruct the crew of DMI to transfer frequency to flight service at the coordinated time.
9. The crew of DMI sighted MWG and adjusted their flight path to ensure separation from that aircraft.



Significant Factors

1. Traffic information on MWG was not passed to the crew of DMI at the earliest possible time.
2. The crew of DMI were not transferred to the flight service frequency at the appropriate time.

Safety Action

As a result of the investigation, Sydney flight service management have:

- 1.Re-issued instructions on the passing of traffic information through air traffic control;
- 2.Updated the Temporary Local Instructions book and relocated it in a readily available position;
- 3.Instructed training officers to ensure that all trainees are instructed in all matters included in temporary local instructions; and
- 4.Introduced new sign-on rules that require all FSOs to read temporary local instructions prior to commencing duty each shift.

