Aviation Safety Investigation Report 199802701

Airbus A320

14 July 1998

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Occurrence Number:	199802701	<b>Occurrence Type:</b>	Incident		
Location:	Melbourne, Aerodrome				
State:	VIC	Inv Category:	4		
Date:	Tuesday 14 July 1998				
Time:	1501 hours	Time Zone	EST		
Highest Injury Level:	None				
Aircraft	Airbus				
Manufacturer:					
Aircraft Model:	A320-211				
Aircraft Registration:	VH-HYF			Serial Number:	027
Type of Operation:	Air Transport Dome Scheduled	stic High Capacity P	Passenger		
Damage to Aircraft:	Nil				
<b>Departure Point:</b>	Melbourne Vic.				
<b>Departure Time:</b>	1501 EST				
Destination:	Perth WA				

Approved for Release: Thursday, December 17, 1998

During takeoff from runway 16 at Melbourne the pilot of the Airbus A320 aircraft experienced inadequate directional control. The takeoff was rejected and the aircraft returned to the gate.

The investigation determined that six days prior to this report the pilot in command's nose wheel steering transmitter had been found to be faulty. Because a spare was not immediately available, the aircraft had been cleared to operate under the conditions of the minimum equipment list.

Because of that deficiency the crew did not have nose wheel steering available through the rudder pedals. Up to 70 kts nosewheel steering is through the tiller steering system, but the tiller is deactivated beyond 70 kts. The rudder becomes fully effective at about 100 kts. Therefore between 70 kts and 100 kts pilots must apply a larger than normal rudder deflection if the rudder pedal steering system is not available to assist with directional control.

The flight data recorder showed that as the aircraft commenced to diverge slightly to the left, the pilot applied right rudder. Subsequent analysis has shown that while the degree of rudder deflection applied by the pilot would have been sufficient to correct the swing had rudder pedal steering been available, without the rudder pedal steering the applied deflection was approximately half of what was required. It was determined that the pilots had not received training in the effects of the loss of rudder pedal steering.

Safety action.

The operator has initiated a simulator training sequence that will address the effects of failure of the rudder pedal steering system.