



GOVERNMENT OF AUSTRALIA

DEPARTMENT OF TRANSPORT

Reference No.

AIRCRAFT ACCIDENT INVESTIGATION SUMMARY REPORT

SI/772/1007

Publication of this report is authorised by the Secretary under the provisions of Air Navigation Regulations 283 (1)

1. LOCATION OF OCCURRENCE

24 kilometres west of Moss Vale, New South Wales	Height a.m.s.l. 2175 feet	Date 22.2.77	Time (Local) 0755 hours	Zone ESuT
--	------------------------------	-----------------	----------------------------	--------------

2. THE AIRCRAFT

Make and Model Piaggio P166	Registration VH-GOC	Certificate of Airworthiness Valid from 13.9.71
Certificate of Registration issued to	Operator	Degree of damage to aircraft Destroyed
		Other property damaged Nil
Defects discovered	Internal structural failure of righthand engine, Lycoming GSO480-BIC6 Serial number L3050-33. Lefthand engine carburettor air temperature control valve detached from actuating shaft.	

3. THE FLIGHT

Last or intended departure point Bankstown	Time of departure 0714 hours	Next point of intended landing Warracknabeal	Purpose of flight Carriage of freight	Class of operation Charter
---	---------------------------------	---	--	-------------------------------

4. THE CREW

Name	Status	Age	Class of licence	Hours on type	Total hours	Degree of injury
	Pilot	55	Commercial	1200 approx.	12000 approx.	Fatal

5. RELEVANT EVENTS

The pilot attended the Bankstown Briefing Office at about 0600 hours. He was briefed concerning the current weather conditions at Bankstown Airport, which were Instrument Meteorological Conditions (IMC) but were improving to VMC; and the relevant meteorological forecasts which indicated, for his proposed route, that he might experience some difficulty in maintaining flight in Visual Meteorological Conditions (VMC). The pilot's licence was not endorsed to permit him to operate in other than VMC.

He then submitted a flight plan for a flight from Bankstown Airport to Warracknabeal and return, proceeding over Marulan the estimated time interval thereto being 33 minutes, the flight to be conducted in accordance with the Visual Flight Rules (VFR) at altitudes not exceeding 5000 feet. The aircraft departed Bankstown Airport, in VMC, and established two way communication with Sydney Flight Service Unit (FSU). At 0748 hours the pilot advised the Sydney FSU that he was "returning to Camden, estimating Camden at one five". In response to a query the pilot advised "weather okay". No further communications were received from the aircraft.

At about 0755 hours the aircraft was heard and observed flying in an easterly direction some 20 kilometres north-northeast of Marulan. There was low cloud and some light rain in the area. The aircraft was flying below the cloud base and was at a height of 500 feet to 200 feet above undulating terrain, proceeding towards rugged terrain which was gradually rising. Subsequently the aircraft proceeded over a ridge line out of the sight of witnesses. Shortly thereafter the engine noise ceased abruptly. The police were alerted and search and rescue action was initiated. The wreckage of the aircraft was located some eight hours later.

The aircraft had crashed on a heavily timbered 12 degree upslope about 100 feet below a ridge line. At impact the aircraft was in a nose down attitude and was banked some 45 degrees to the right. The righthand propeller was feathered and the engine had not been operating at impact. The lefthand engine had been under power. The landing gear and flaps had been fully retracted. The available evidence indicates that the gross weight of the aircraft was at or about the maximum permissible all up weight.

Examination of the righthand engine revealed massive internal failure which had commenced with the failure of the righthand dowel in the Number 2 main crankcase bearing. It is probable that the dowel failed because of abnormal loads resulting from loss of bearing nip associated with crankcase fretting at the lower through bolt of the Number 2 bearing saddle. It is estimated that the engine had operated some 170 hours since issue of the last maintenance release on 26 October 1976.

6. OPINION AS TO CAUSE

The probable cause of the accident was that, in the conditions pertaining, the single engine performance of the aircraft was insufficient to ensure maintenance of adequate terrain clearance whilst flying over undulating terrain at a low height.

Approved for
publication(A.R. Woodward)
Delegate of the SecretaryDate
17.4.78