COMMONWEALTH OF AUSTRALIA
DEPARTMENT OF CIVIL AVIATION

# AIRCRAFT ACCIDENT INVESTIGATION SUMMARY REPORT

Reference No.

AS/695/1032

1. LOCATION OF OCCURRENCE  Airborne 7 NM South East, Port Hedland		Height a.m.s.l. (ft)	Date	Time	(Local)	Zone
		3000 feet	19.8.69	1320		WST
2. THE AIRCRAFT						
ake and Model	Registration	Certificate of	Valid from		Valid to	
Cessna P206	VH-PQD	Airworthiness	17.9.65		16.9.74	
Registered Owner	Operator Degree of damage to aircraft					
Trans West Air Charter Pty. Ltd.,	Trans West Air Charter Pty. Ltd.,		Substantial			
155 Adelaide Terrace,	155 Adelaide Terrace,		Other property damaged			
Perth, W.A.	Perth, W.A.		ļ			
Defects discovered						

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3. THE FLIGHT							
ast or intended departure point	Time of departure	Next point of intended landing Marble Bar		Purpose of flight Travel		Class of operation Charter	
Port Hedland	1318						
THE CREW							
Name	Status	Age	Class of licence	Hours on type	Total hours	Degree	of injury
Geoffrey SARTORI	Pilot	21	Commercial	54 hours	1740 hours	: Nil	
5. OTHER PERSONS (All pass	sengers and person	s injured or	ground)			<u> </u>	
Name	Status	Degree of i	niury .	Name	S+,	D	acres of inju

Nome Status Degree of injury Name Status Degree of injury

R. MATHER Passenger Nil J. DOUGLAS Passenger Nil

F. MORGEN Passenger Nil

# CONTRAVENTIONS OF REGULATIONS AND ORDERS Regulation or Order No. Nature of contravention

## RELEVANT EVENTS

The aircraft departed Port Hedland and commenced to climb to a cruising altitude of 5,500 feet. When it had climbed to approximately 3,000 feet a loud bang from the engine area was heard, and a substantial loss of engine power occurred. The pilot turned back towards the aerodrome and the cabin began to fill with smoke but this cleared when the port window was opened. The pilot carried out various cockpit checks but was unable to restore full power to the engine and he carried out a straight in approach and landed on runway 32.

Subsequent examination revealed that the No. 5 cylinder head had failed, following the development of a fatigue crack. Displacement of the cylinder head after failure broke a fuel injection line which led to a fire in the engine cowling, and resulted in damage to engine components and cowlings and to lower fuselage skin.

### 8. OPINION AS TO CAUSE

The cause of the accident was that arising from the failure by fatigue of the No. 5 cylinder head, a fire occurred in the engine compartment of the aircraft.

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Report approved		Designation	Date
Eld, raham.	(D.S. GRAHAM)	Assistant Director-General (Air Safety Investigation)	6 5 70
\$		(Air Salety investigation)	[0.0.10

### DEFINITIONS

- ACCIDENT An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all those persons have disembarked and in which
  - (a) any person suffers death or serious injury as a result of being in or upon the aircraft or by direct contact with the aircraft or anything attached to the aircraft; or
  - (b) the aircraft suffers substantial damage.

FATAL INJURY - Any injury which results in death within 30 days.

SERIOUS INJURY - Any injury other than a fatal injury which

- (a) requires hospitalisation for more than 48 hours, commencing within seven days from the date the injury was received; or
- (b) results in a fracture of any bone (except simple fractures of fingers, toes or nose); or
- (c) involves lacerations which cause severe haemorrhages, nerve, muscle or tendon damage; or
- (d) involves injury to any internal organ; or
- (e) involves second or third degree burns, or any burns affecting more than five percent of the body surface.

MINOR INJURY - Any injury other than as defined under "Fatal Injury" or "Serious Injury".

DESTROYED - Consumed by fire, demolished or damaged beyond repair.

SUBSTANTIAL DAMAGE - Damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft and which would normally require major repair or replacement of the affected component. The following types of damage are specifically excluded: engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, taxi-ing damage to propeller blades, damage to tyres, engine accessories, brakes, or wingtips.

MINOR DAMAGE - Damage other than as defined under "Destroyed" or "Substantial Damage".