



National Transportation Safety Board

Aviation Accident Final Report

Location:	KAILUA-KONA, HI	Accident Number:	LAX89FA307
Date & Time:	09/10/1989, 1518 HST	Registration:	N22LR
Aircraft:	AERO COMMANDER 680FLP	Aircraft Damage:	Destroyed
Defining Event:	Injuries:		
Flight Conducted Under:	1 Fatal, 1 Serious		

Analysis

AS THE ACFT WAS DEPG FM RWY 17, SMOKE WAS OBSERVED COMING FM THE RGT ENG. THE PLT CONFIRMED A LOSS OF PWR & MADE A RGT TURN BACK TOWARD THE RWY, THEN RPRTD HE HAD 'LOST BOTH ENGINES.' THE ACFT WAS EXTENSIVELY DMGD DURING A LNDG ON ROUGH, ROCKY TRRN ABT 1/4 MI SW OF THE RWY THRESHOLD. INVESTIGATION REVEALED THE ACFT HAD JUST CHANGED OWNERSHIP. DURING PRE- PURCHASE INSPN IN FLORIDA, METAL PARTICLES WERE FND IN THE OIL SCREENS OF BOTH ENGS. OIL WAS CHGD & FLUSHED, BUT METAL PARTICLES WERE FND AFTER ANOTHER ENG RUN. IN MAY 1989, THE RGT ENG WAS REPLACED WITH AN ENG FM ANOTHER ACFT. THE ACFT WAS FLOWN TO OAKLAND, CA, WHERE IT WAS PAINTED & NEW INTERIOR WAS INSTALLED. A LCL MECH NOTED METAL PARTICLES IN BOTH ENG OIL SCREENS & RCMNDD OIL ANALYSIS, BUT FERRYING PLT REFUSED. AFTER FLT TO HAWAII, NO OIL STAIN NOTED ON FUSELAGE BFRFLT ON 9/9/89. EXAM OF WRECKAGE REVEALED BOTH ENGS FAILED FM DETONATION. HVY OIL STREAKS FND BHND RGT ENG, SOME STREAKS OF OIL FND BHND LEFT ENG. RGT ENG CRANKSHAFT/ROD BRG SURFACE WAS 0.010' UNDER STANDARD, BUT ROD BRGS WERE STANDARD SIZE.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: INADEQUATE MAINTENANCE, AND OPERATION BY THE PILOT WITH KNOWN DEFICIENCIES IN THE AIRCRAFT. FACTORS RELATED TO THE ACCIDENT WERE: EXCESSIVE WEAR IN BOTH ENGINES, IMPROPER USE OF POWERPLANT CONTROLS BY THE PILOT, SUBSEQUENT OVERTEMPERATURE/DETINATION IN BOTH ENGINES, IMPROPER EMERGENCY PROCEDURES BY THE PILOT (INCLUDING PREMATURE GEAR EXTENSION AND/OR FAILURE TO PROPERLY REDUCE DRAG ON THE AIRCRAFT AFTER LOSS OF ENGINE POWER), AND THE PILOT'S LACK OF EXPERIENCE IN MULTI-ENGINE AND THIS MAKE AND MODEL OF AIRCRAFT.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. 1 ENGINE
2. (F) ENGINE ASSEMBLY - WORN
3. FLUID,OIL - CONTAMINATION
4. (C) MAINTENANCE - INADEQUATE - OTHER MAINTENANCE PERSONNEL
5. (C) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - PERFORMED - PILOT IN COMMAND
6. (F) ENGINE ASSEMBLY - OVERTEMPERATURE
7. (F) ENGINE ASSEMBLY,PISTON - FAILURE,TOTAL

Occurrence #2: LOSS OF ENGINE POWER(TOTAL) - MECH FAILURE/MALF
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

8. ALL ENGINES
9. PRECAUTIONARY LANDING - INITIATED - PILOT IN COMMAND
10. (F) GEAR EXTENSION - PREMATURE - PILOT IN COMMAND
11. (F) POWERPLANT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
12. (F) ENGINE ASSEMBLY,PISTON - OVERTEMPERATURE
13. (F) ENGINE ASSEMBLY,PISTON - FAILURE,TOTAL

Occurrence #3: FORCED LANDING
Phase of Operation: MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Findings

14. (F) EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND
15. (F) LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

Occurrence #4: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: LANDING

Findings

16. (F) TERRAIN CONDITION - ROUGH/UNEVEN

Factual Information

Pilot Information

Certificate:	Private	Age:	30, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	07/11/1988
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	203 hours (Total, all aircraft), 23 hours (Total, this make and model), 148 hours (Pilot In Command, all aircraft), 34 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	AERO COMMANDER	Registration:	N22LR
Model/Series:	680FLP 680FLP	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	1503-18
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:	09/02/1988, Annual	Certified Max Gross Wt.:	8500 lbs
Time Since Last Inspection:	72 Hours	Engines:	2 Reciprocating
Airframe Total Time:	4790 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IGSO-540-B1A
Registered Owner:	PETER M. MAVEAL	Rated Power:	380 hp
Operator:	PETER M. MAVEAL	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KOA, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	1550 HST	Direction from Accident Site:	0°
Lowest Cloud Condition:	Scattered / 1500 ft agl	Visibility	15 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	23°C / -18°C
Precipitation and Obscuration:			
Departure Point:	(KOA)	Type of Flight Plan Filed:	VFR
Destination:	HONOLULU, HI (HNL)	Type of Clearance:	VFR
Departure Time:	1514 HST	Type of Airspace:	Class D

Airport Information

Airport:	KEAHOLE (KOA)	Runway Surface Type:	Asphalt
Airport Elevation:	43 ft	Runway Surface Condition:	Dry
Runway Used:	17	IFR Approach:	None
Runway Length/Width:	6500 ft / 150 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Serious	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal, 1 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	A. D LLORENTE	Report Date:	09/05/1991
Additional Participating Persons:	STEVEN DAHLEN; HONOLULU, HI		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/ .		

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