



National Transportation Safety Board Aviation Accident Data Summary

Location:	Reno, NV	Accident Number:	SEA08GA194
Date & Time:	09/01/2008, 1810 PDT	Registration:	N4235T
Aircraft:	LOCKHEED P2V-7	Injuries:	3 Fatal
Flight Conducted Under:	Public Aircraft		

Analysis

Just after the airplane's landing gear was retracted during takeoff for a retardant drop mission, a ball of fire was observed coming out of the left jet engine before the airplane rolled steeply to the left and descended into the terrain. Prior to takeoff, the captain said he would make the takeoff and provided a takeoff briefing concerning the runway to be used and his intentions should an emergency develop. Shortly thereafter, the captain informed the co-pilot that this would actually be his (the co-pilot's) takeoff. On the cockpit voice recorder, the co-pilot stated "Same briefing (sound of laughter)". The co-pilot did not give an additional takeoff briefing beyond the one given by the captain and the captain did not ask the co-pilot to give one. During the initial climb, the captain said he detected a fire on the left side of the airplane and the co-pilot responded that he was holding full right aileron. At no point did either pilot call for the jettisoning of the retardant load as required by company standard operating procedures, or verbally enunciate the jet engine fire emergency checklist. Recorded data showed that the airplane's airspeed then decayed below the minimum air control speed, which resulted in an increased roll rate to the left and impact with terrain. The 11th stage compressor disc of the left jet engine failed in fatigue, which caused a catastrophic failure of the compressor section and the initiation of the engine fire. Metallurgical examination of the fracture identified several origin points at scratches in the surface finish of the disk. The scratches were too small to have been observed with the approved inspection procedures used by the company. A review of the FAA sanctioned Approved Aircraft Inspection Program, revealed no shortcomings or anomalies in the performance or documentation of the program. A post-accident examination of the airframe and three remaining engines revealed no anomalies that would have precluded normal operations.

Flight Events

Initial climb - Powerplant sys/comp malf/fail
Initial climb - Loss of engine power (partial)
Initial climb - Loss of control in flight
Uncontrolled descent - Collision with terr/obj (non-CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The failure of the flight crew to maintain airspeed above in-flight minimum control speed (V_{mca}) after losing power in the left jet engine during initial climb after takeoff. Contributing to the accident was the crew's inadequate cockpit resource management procedures, the failure of the captain to assume command of the airplane during the emergency, the flight crew's failure to carry out the jet engine fire emergency procedure, and the failure of the crew to jettison the retardant load.

Findings

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Airspeed-Not

attained/maintained - C

Personnel issues-Task performance-Communication (personnel)-CRM/MRM techniques-Flight crew - F

Personnel issues-Task performance-Use of equip/info-Aircraft control-Flight crew - C

Personnel issues-Action/decision-Action-Lack of action-Flight crew - F

Pilot Information

Certificate:	Airline Transport; Commercial	Age:	61
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine
Flight Time:	9520 hours (Total, all aircraft), 8701 hours (Pilot In Command, all aircraft), 118 hours (Last 90 days, all aircraft), 55 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Co-Pilot Information

Certificate:	Airline Transport; Commercial	Age:	41
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Instrument Rating(s):	Airplane
Other Aircraft Rating(s):	None	Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine
Flight Time:	2812 hours (Total, all aircraft), 1725 hours (Pilot In Command, all aircraft), 121 hours (Last 90 days, all aircraft), 55 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Other Flight Crew Information

Certificate:	Private	Age:	25
Airplane Rating(s):	Single-engine Land	Instrument Rating(s):	None
Other Aircraft Rating(s):	None	Instructor Rating(s):	None
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	LOCKHEED	Registration:	N4235T
Model/Series:	P2V-7 SP-2H	Engines:	4 Turbo Jet
Operator:	Neptune Aviation Services Inc.	Engine Manufacturer:	Westinghouse
Air Carrier Operating Certificate:		Engine Model/Series:	J34-WE-36
Flight Conducted Under:	Public Aircraft		

Meteorological Information and Flight Plan

Observation Facility, Elevation:	RTS, 5050 ft msl	Weather Information Source:	Weather Observation Facility
Conditions at Accident Site:	Visual Conditions	Lowest Ceiling:	None
Condition of Light:	Day	Wind Speed/Gusts, Direction:	8 knots, 10°
Temperature:	22° C / -8° C	Visibility	10 Miles
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Reno, NV (4SD)	Destination:	Reno, NV (4SD)

Airport Information

Airport:	Reno/Stead Airport (RTS)	Runway Surface Type:	Asphalt
Runway Used:	32	Runway Surface Condition:	Dry
Runway Length/Width:	9000 ft / 150 ft		

Wreckage and Impact Information

Crew Injuries:	3 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	In-Flight
Ground Injuries:	N/A	Aircraft Explosion:	None

Administrative Information

Investigator In Charge (IIC):	Thomas Little	Adopted Date:	03/23/2010
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 pubin@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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