

National Transportation Safety Board
Washington, DC 20594

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Brief of Accident

Adopted 03/23/2010

SEA08GA194
File No. 26460 09/01/2008 Reno, NV Aircraft Reg No. N4235T Time (Local): 18:10 PDT

Make/Model:	Lockheed / P2V-7	Fatal	3	Serious	0	Minor/None	0
Engine Make/Model:	Westinghouse / J34-WE-36	Crew	0				
Aircraft Damage:	Destroyed	Pass	0		0		0
Number of Engines:	4						
Operating Certificate(s):	Large Aircraft Operator; Agricultural Operator						
Name of Carrier:	Neptune Aviation Services Inc.						
Type of Flight Operation:	Fire Fighting; Non-scheduled; Domestic						
Reg. Flight Conducted Under:	Public Use						

Last Depart. Point:	Same as Accident/Incident Location	Condition of Light:	Day
Destination:	Local Flight, NV	Weather Info Src:	Weather Observation Facility
Airport Proximity:	On Airport/Airstrip	Basic Weather:	Visual Conditions
Airport Name:	Reno/Stead Airport	Lowest Ceiling:	None
Runway Identification:	32	Visibility:	10.00 SM
Runway Length/Width (Ft):	9000 / 150	Wind Dir/Speed:	010 / 008 Kts
Runway Surface:	Asphalt	Temperature (°C):	22
Runway Surface Condition:	Dry	Precip/Obscuration:	No Obscuration; No Precipitation

Pilot-in-Command Age: 61

Flight Time (Hours)

Certificate(s)/Rating(s)
Airline Transport; Commercial; Multi-engine Land; Single-engine Land

Total All Aircraft: 9520
Last 90 Days: 118
Total Make/Model: Unk/Nr
Total Instrument Time: Unk/Nr

Instrument Ratings
Airplane

Just after the airplane's landing gear was retracted during takeoff for a retardant drop mission, a ball of fire was observed coming out of the left jet engine before the airplane rolled steeply to the left and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.

Updated at Mar 23 2010 5:08PM

Brief of Accident (Continued)

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OCCURRENCES

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)

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

Findings Legend: (C) = Cause, (F) = Factor

The National Transportation Safety Board determines the probable cause(s) of this accident as follows.

The failure of the flight crew to maintain airspeed above in-flight minimum control speed (Vmca) 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.