National Transportation Safety Board Washington, DC 20594

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Brief of Accident

Adopted 10/04/2011

WPR11CA309

File No. 28774 07/04/2011 Vancouver, WA Aircraft Reg No. N5175D Time (Local): 20:35 PDT Make/Model: Cessna/182A Fatal Serious Minor/None Engine Make/Model: Cont Motor / O-470 SERIES Crew 0 0 Aircraft Damage: Substantial Pass 0 0 Number of Engines: 1 Operating Certificate(s): None Type of Flight Operation: Banner Tow Reg. Flight Conducted Under: Part 91: General Aviation Last Depart, Point: Same as Accident/Incident Location Condition of Light: Day Destination: Local Flight, WA Weather Info Src: Weather Observation Facility Airport Proximity: On Airport/Airstrip Basic Weather: Visual Conditions Airport Name: Pearson Field Lowest Ceiling: None Runway Identification: N/A Visibility: 10.00 SM Runway Length/Width (Ft): Unk/Nr Wind Dir/Speed: 311 / 007 kts Runway Surface: Temperature (°C): 23 Precip/Obscuration: No Obscuration; No Precipitation Runway Surface Condition: Pilot-in-Command Age: 53 Flight Time (Hours)

Certificate(s)/Rating(s)

Flight Instructor; Commercial; Multi-engine Land; Single-engine Land; Glider

Instrument Ratings
Airplane

Total All Aircraft: 1596 Last 90 Days: 71 Total Make/Model: 1011 Total Instrument Time: 220

*** Note: NTSB investigators used data provided by various entities, including, but not limited to, the Federal Aviation Administration and/or the operator and did not travel in support of this investigation to prepare this aircraft accident report. ***

The banner tow pilot reported that he approached the banner tow pickup point to catch the rope with his tail hook. Shortly after his initial pitch up maneuver to hook the rope, the pilot observed through a small mirror that the rope was not attached to his tail hook. Subsequently the banner lifted off the ground and the pilot could see that the banner rope looked like it was resting on or around his right horizontal stabilizer. Photos taken of the airplane in the air by a witness prior to the accident show the tow rope hooked around the nose gear and looped over the right horizontal stabilizer. Unable to release the banner, the pilot returned to land on the grassy area next to the runway as he was concerned that the banner might get snagged on obstacles located around the runway. As the pilot began his landing approach at approximately a 300 foot per minute descent and was crossing the west end of the runway, he brought the throttle to idle, added full flaps, and tried to maintain 60 mph. As the airplane descended the banner contacted the ground resulting in a significant amount of drag to the airplane. According to the pilot the airspeed began to drop and he attempted to maintain it by further lowering the nose. The airplane contacted the ground hard and the firewall sustained substantial damage. The pilot reported that there were no preimpact mechanical malfunctions or failures with the airframe and engine that would have precluded normal operation.

Updated at Oct 4 2011 9:32AM

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OCCURRENCES

Maneuvering-low-alt flying - Miscellaneous/other Landing-flare/touchdown - Hard landing

FINDINGS

Personnel issues-Task performance-Use of equip/info-Aircraft control-Pilot - C Aircraft-Fluids/misc hardware-Misc hardware-(general)-Incorrect use/operation - C

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

The National Transportation Safety Board determines the probable cause(s) of this accident as follows: The pilot's failure to properly engage the banner tow rope with the airplane's tail hook.