National Transportation Safety Board Washington, DC 20594

Brief of Accident

Adopted 05/08/2014

ERA13FA059

File No. 32516 11/16/2012 Owls Head .ME Aircraft Reg No. N6142F Time (Local): 16:45 EST Make/Model: Cessna/172N Fatal Serious Minor/None Engine Make/Model: Lycoming / O-320-H2AD Crew 1 0 0 Aircraft Damage: Substantial Pass 2 0 0 Number of Engines: 1 Operating Certificate(s): None Type of Flight Operation: Personal Reg. Flight Conducted Under: Part 91: General Aviation Last Depart, Point: Same as Accident/Incident Location Condition of Light: Night/Dark Destination: Bangor, ME Weather Info Src: Weather Observation Facility Airport Proximity: On Airport/Airstrip Basic Weather: Visual Conditions Airport Name: Knox County Regional Airport Lowest Ceiling: None Runway Identification: 31 Visibility: 10.00 SM Wind Dir/Speed: 340 / 003 kts Runway Length/Width (Ft): 5007 / 100 Runway Surface: Asphalt Temperature (°C): 3 Precip/Obscuration: No Obscuration; No Precipitation Runway Surface Condition: Dry Pilot-in-Command Age: 24 Flight Time (Hours)

Certificate(s)/Rating(s)
Private; Single-engine Land

Instrument Ratings None Total All Aircraft: 49 Last 90 Days: Unk/Nr Total Make/Model: 49 Total Instrument Time: UnK/Nr

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*** Note: NTSB investigators either traveled in support of this investigation or conducted a significant amount of investigative work without any travel, and used data obtained from various sources to prepare this aircraft accident report. ***

Shortly after the end of civil twilight and during the departure roll with about liftoff speed, the airplane collided with a private ground vehicle that was crossing the runway, which resulted in the separation of the airplane's right elevator. The vehicle driver reported that he did not see the airplane until after the collision as it was attempting to gain altitude. Witnesses observed the airplane attempting to climb, drifting left of the runway, and then beginning a left turn. Witnesses then observed the airplane in "slow flight" and subsequently spinning until impact.

Examination of the vehicle revealed impact marks on the left front fender consistent in size and shape with the airplane's right elevator. One light bulb from the vehicle's headlights was located, and examination of the light bulb revealed that the filament was stretched, which is consistent with the light being on at the time of the collision. The driver stated that he did not, nor was ever required to, have a yellow beacon on his vehicle. After the accident, the airport required airport beacons to be placed on the top most portion of the vehicle and to be operational both day and night while that vehicle operates on the ramp, taxiway, runway, or any other areas that an aircraft may operate.

Examination of the airplane's wingtip light bulbs revealed that the filaments were stretched, indicating that the lights were on at the time of the accident.

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Examination of the beacon and navigation light bulbs did not reveal any information about their operational status at the time of the accident.

It could not be determined if the driver or pilot announced their intentions over the airport common traffic advisory frequency. A handheld radio was located on the vehicle's dashboard; however, it was found in the "off" position. When the radio was placed in the "on" position and the correct frequency was set, the radio transmitted and received with no anomalies noted. Although the airplane was close to or perhaps past liftoff speed, the pilot likely could have stopped the airplane on the remaining 3,600-feet of paved runway following the impact with the vehicle. However, the pilot did not discontinue the takeoff.

Updated at May 8 2014 10:42AM

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OCCURRENCES

Takeoff - Runway incursion veh/AC/person Takeoff - Collision during takeoff/land Initial climb - Loss of control in flight Uncontrolled descent - Collision with terr/obj (non-CFIT)

FINDINGS

Personnel issues-Action/decision-Action-Incorrect action performance-Pilot - C
Environmental issues-Conditions/weather/phenomena-Light condition-(general)-Contributed to outcome - F
Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Pitch control-Not attained/maintained - C
Environmental issues-Conditions/weather/phenomena-Light condition-(general)-Contributed to outcome
Personnel issues-Action/decision-Action-Lack of action-Airport personnel - C

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

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

The vehicle driver's failure to verify that the runway was not occupied by an airplane before crossing the runway, which resulted in the vehicle being struck by a departing airplane, and the pilot's continued takeoff with flight control damage, which subsequently resulted in an aerodynamic stall and spin at low altitude.