National Transportation Safety Board Washington, DC 20594

Printed on: 03/23/2015 07:59:46 AM

Brief of Accident

Adopted 08/07/2014

ERA12FA465

Airplane

File No. 32911 07/19/2012 Berlin .MD Aircraft Reg No. N4330Z Time (Local): 10:50 EDT Make/Model: Piper/PA-18-150 Fatal Serious Minor/None Engine Make/Model: Lycoming / O&VO-360 SER Crew 1 0 0 Aircraft Damage: Substantial Pass 0 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, MD Weather Info Src: Weather Observation Facility Airport Proximity: Off Airport/Airstrip Basic Weather: Visual Conditions Lowest Ceiling: None Visibility: 10.00 SM Wind Dir/Speed: 240 / 006 kts Temperature (°C): 32 Precip/Obscuration: No Obscuration; No Precipitation Pilot-in-Command Age: 23 Flight Time (Hours) Certificate(s)/Rating(s) Total All Aircraft: 508 Commercial; Single-engine Land Last 90 Days: 183 Total Make/Model: 164 Total Instrument Time: UnK/Nr Instrument Ratings

*** 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. ***

The airplane was returning from a midmorning banner tow on a hot and humid day. The pilot made all of the standard radio calls and dropped the banner at the appropriate time. According to several witnesses, the drop was normal; however, instead of adding power and turning right after the drop per normal company procedures, the airplane continued straight ahead, and no power was added. About 1/2 mile beyond the drop area, the airplane stalled and entered a left spin, then hit a large oak tree, impacted the ground, and was subsequently consumed in a postcrash fire. The accident site was located on an abandoned golf course with multiple areas of open flat land both in its immediate vicinity and between the site and the banner drop area. No preexisting mechanical anomalies were noted with the airplane that would have precluded normal operation, and propeller damage indicated the presence of engine power at impact. Fellow pilots reported that the pilot was known for consistently flying correct patterns, was considered the most cautious in the group of banner pilots, and would radio anytime he thought something was abnormal, but he made no radio calls after the banner drop. The pilot had gone for a run earlier that morning. After the run, the pilot noted to another pilot how "heavy" the air felt and how he couldn't "get a full breath." He twice stated to another pilot that he had a headache. He called his wife during the flight, and she reported that the conversation was "normal" and that the pilot did not mention a headache. Autopsy results did not reveal evidence of pilot incapacitation; however, the heat from the postcrash fire affected the extent and fidelity of available medical evidence.

Brief of Accident (Continued)

ERA12FA465 File No. 32911

07/19/2012

Berlin ,MD

Aircraft Reg No. N4330Z

Time (Local): 10:50 EDT

However, other evidence, such as the pilot's failure to turn the airplane and add power as he normally would; his failure to announce any difficulties as he typically did; his failure to use other available landing sites, if needed, and instead continue straight ahead for 1/2 mile; and his failure to maintain airspeed suggests that it is likely that he was unable to perform basic piloting functions due to incapacitation.

Updated at Aug 7 2014 12:38PM

Brief of Accident (Continued)

ERA12FA465 File No. 32911

07/19/2012

Berlin ,MD

Aircraft Reg No. N4330Z

Time (Local): 10:50 EDT

OCCURRENCES

Maneuvering-low-alt flying - Aerodynamic stall/spin

FINDINGS

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Airspeed-Attain/maintain not possible Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Angle of attack-Capability exceeded Personnel issues-Physical-Impairment/incapacitation-(general)-Pilot - C

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

The National Transportation Safety Board determines the probable cause(s) of this accident as follows: Pilot incapacitation of unknown origin, which resulted in the airplane's loss of control and an inadvertent aerodynamic stall/spin.