



National Transportation Safety Board Aviation Accident Final Report

Location:	Jerome, ID	Accident Number:	WPR15LA255
Date & Time:	09/01/2015, 1940 MDT	Registration:	N4BM
Aircraft:	EXTRA FLUGZEUGBAU GMBH EA 300/L	Aircraft Damage:	Destroyed
Defining Event:	Low altitude operation/event	Injuries:	1 Serious
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The private pilot was conducting a local personal flight. A witness located at the airport reported that he observed the accident airplane take off and then head southwest. He then observed the airplane perform a loop, and he estimated that, at the top of the maneuver, the airplane was about 1,500 ft above ground level. As the airplane began leveling off at the bottom of the loop, it descended out of the witness's line of sight behind a building. The pilot reported that he did not recall anything about the flight.

Postaccident examination of the recovered wreckage did not reveal any preexisting mechanical malfunctions that would have precluded normal operation. Wreckage and impact signatures were consistent with a high-energy, low-angle impact with terrain. It is likely that the pilot did not properly gauge the airplane's distance from terrain while conducting the low-altitude aerobatic maneuver and failed to level off in time to avoid impacting terrain.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain clearance from terrain while conducting a low-altitude aerobatic maneuver.

Findings

Aircraft	Altitude - Not attained/maintained (Cause)
Personnel issues	Monitoring environment - Pilot (Cause)
Environmental issues	Tree(s) - Awareness of condition (Cause)

Factual Information

On September 1, 2015, about 1940 mountain daylight time, an Extra Flugzeugbau GMBH EA 300/L, N4BM, was destroyed when it impacted terrain near the Jerome County Airport (JER), Jerome, Idaho. The airplane was registered to and operated by the pilot under the provisions of Title 14 Code of Federal Regulations Part 91. The private pilot, sole occupant of the airplane, was seriously injured. Visual meteorological conditions prevailed and no flight plan was filed for the personal flight. The local flight originated from JER about 5 minutes prior to the accident.

A witness located at the airport reported that he watched the accident airplane take off and head to the southeast. The witness said that another person who was with him had asked the pilot to return and do a fly by, so they went outside to watch. The witness stated that he observed the accident airplane southeast of the airport, conducting a loop, and estimated that the airplane was about 1,500 feet above ground level as the airplane neared the top of the maneuver. The witness further stated that as he walked away from the building to continue to watch the airplane, he observed it descend out of his line of sight behind a building. He added that as it descended below the building, the airplane appeared to have started to level out, and felt that it should have had enough altitude.

The pilot reported that he didn't recall anything regarding the accident flight other than getting into the airplane and waking up in the hospital 5 days later. The pilot stated that he wanted to go on an easy flight in order to clear his mind since his wife passed away a couple weeks prior, and that he had no intent of performing aerobatics.

Examination of the airplane and accident site by a Federal Aviation Administration inspector revealed that the airplane impacted a corn field about one-half mile southeast of the approach end of runway 27. All major structural components of the airplane were located at the accident site. Wings, engine, and empennage were separated from the fuselage and located within the wreckage debris path. Local law enforcement reported that the debris path was about 375 feet in length. The wreckage was recovered to a secure location for further examination.

Examination of the recovered wreckage revealed that the wings, empennage, and engine were separated from the fuselage. The fuselage was mostly intact. The canopy glass was separated from the canopy structure. The empennage was separated about 30 inches aft of the rear seat. The throttle, mixture, and propeller control cables were pulled /stretched. The acro / center fuel tank remained intact. Air was applied to the fuel filler of the fuel tank, and residual fuel was observed being expelled from the airframe fuel filter housing (gascolator), which was impact damaged.

Flight control continuity was established from the forward and aft control sticks to the left and right wing root, and aft to the separation point of the empennage. Both control sticks remained interconnected. Left and right aileron control continuity was established with various areas of impact damage observed to the control torque tubes (fractures consistent with overload). The rudder cables remained attached to the rudder pedals and exhibited overload signatures (in an area consistent with the separation of the fuselage).

The left and right wings were impact damaged, and were mostly fragmented. The empennage was intact, with the horizontal stabilizers and vertical stabilizers still intact. The forward spars for the left and right elevators and the rudder remained attached to their respective mounts,

and the remainder of each flight control surface was fragmented.

The engine was separated from its mounts. Both the left and right magnetos were separated. The oil cooler exhibited impact damage. The accessory housing, rocker box covers, top spark plugs, and propeller assembly were removed. The engine rotated partially by hand using a hand tool. Examination of cylinder number two revealed that the cylinder bore was filled with dirt and metallic debris (portion of the intake elbow). The cylinder was partially removed from the crankcase, and the crankshaft was manually rotated. Thumb compression and suction was obtained on cylinders 1, 3, 4, 5, and 6. Mechanical continuity of cylinder number 2 was established. No internal physical or mechanical damage was observed internally for cylinder 2 when inspected using a lighted borescope.

For further details of the airframe and engine examination, see the NTSB Airframe and Engine Examination Summary report within the public docket for this accident.

No evidence of any preexisting mechanical malfunction was observed that would have precluded normal operation with the airframe or engine.

History of Flight

Maneuvering-aerobatics	Low altitude operation/event (Defining event) Collision with terr/obj (non-CFIT)
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Pilot Information

Certificate:	Private	Age:	42, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 None	Last Medical Exam:	02/18/2014
Occupational Pilot:	No	Last Flight Review or Equivalent:	03/16/2014
Flight Time:	(Estimated) , 100 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	EXTRA FLUGZEUGBAU GMBH	Registration:	N4BM
Model/Series:	EA 300/L L	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	017
Landing Gear Type:	Tailwheel	Seats:	
Date/Type of Last Inspection:	11/02/2014, Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:	12.62 Hours	Engines:	1 Reciprocating
Airframe Total Time:	587.11 Hours	Engine Manufacturer:	LYCOMING
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	AEIO-540 SER
Registered Owner:	On file	Rated Power:	0 hp
Operator:	On file	Air Carrier Operating Certificate:	None

Meteorological Information and Flight Plan

Observation Facility, Elevation:	KJER, 4048 ft msl	Observation Time:	0153 UTC
Distance from Accident Site:	1 Nautical Miles	Condition of Light:	Day
Direction from Accident Site:	293°	Conditions at Accident Site:	Visual Conditions
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	23° C / 6° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	3 knots, 30°	Visibility (RVR):	
Altimeter Setting:	29.82 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Jerome, ID (JER)	Type of Flight Plan Filed:	None
Destination:	Jerome, ID (JER)	Type of Clearance:	None
Departure Time:	1935 MDT	Type of Airspace:	

Airport Information

Airport:	JEROME COUNTY (JER)	Runway Surface Type:	
Airport Elevation:	4053 ft	Runway Surface Condition:	Dry
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Serious		

Administrative Information

Investigator In Charge (IIC):	Joshua Cawthra	Adopted Date:	05/16/2016
Additional Participating Persons:	Lyndsay Carlson; Federal Aviation Administration; Salt Lake City, UT Mark Platt; Lycoming Engines; Williamsport, PA		
Publish Date:	05/16/2016		
Note:	The NTSB did not travel to the scene of this accident.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=91909		

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