



Aviation Investigation Final Report

Location:	Sugar Grove, Illinois	Accident Number:	CHI03LA327
Date & Time:	August 23, 2003, 17:40 Local	Registration:	N9PB
Aircraft:	Extra Flugzeugbau EA200	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

During an aerobatic competition, the airplane experienced a loss of engine power, and was damaged during the ensuing forced landing. The pilot departed the competitor's zone and attempted to land on the active runway even though the opposite direction runway would have been closer. After switching fuel tanks in an unsuccessful attempt to regain engine power, the pilot prepared for the forced landing. The airplane impacted the ground 30-50 feet off the approach end of the runway. The airplane's propeller and wing were damaged and the landing gear collapsed. The magneto switch was found in the off position. The pilot had no recollection of having turned the switch to the off position. The pilot escaped with no injuries.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power due to the pilot's inadvertent deactivation of the magnetos, and the pilot's selection of the wrong runway for the forced landing. Factors were the low altitude and the unsuitable terrain encountered during the forced landing.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: MANEUVERING

Findings

1. (C) IGNITION SYSTEM, MAGNETO - DISENGAGED

2. (C) POWERPLANT CONTROLS - INADVERTENT DEACTIVATION - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: EMERGENCY DESCENT/LANDING

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: EMERGENCY DESCENT/LANDING

Findings

3. TERRAIN CONDITION - GROUND

4. (F) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - ENCOUNTERED - PILOT IN COMMAND

5. (F) ALTITUDE - LOW - PILOT IN COMMAND

6. (C) WRONG RUNWAY - SELECTED - PILOT IN COMMAND

Factual Information

On August 23, 2003, about 1740 central daylight time, an Extra Flugzeugbau EA200, N9PB, piloted by a private pilot sustained substantial damage during a forced landing following a loss of engine power while maneuvering near Sugar Grove, Illinois. The airplane was being flown in an aerobatic competition when the power loss occurred. The airplane came to rest about 50 feet short of the runway during the attempted landing to runway 9 (6,501 feet by 100 feet, concrete), at the Aurora Municipal Airport (ARR). The 14 CFR Part 91 personal flight was operating in visual meteorological conditions without a flight plan. The pilot was not injured. The local flight originated at an undetermined time.

The pilot reported the engine lost power while performing an aerobatic maneuver while in an aerobatic competition. She exited the competitor area and switched over to control tower frequency and informed them of her situation. She stated that she switched fuel tanks from the acro tank to the wing tank, but the engine did not regain power. She stated that she was "just south of the airport, closer to [runway] 27, but as [runway] 9 was the active runway I attempted a 180 [degree] side approach to runway 9." The airplane sank too quickly and impacted the ground "approximately 30-50 [feet]" off the west end of runway 9. After impact she exited the airplane and noticed damage to the prop, wing, and collapsed landing gear.

A fellow competitor went to assist in the accident. He noticed the key was in the "off position." The accident pilot has no recollection of turning the key in the off position after impact. An authorized inspector who performed the accident airplanes last annual said "the key could have possibly been struck or shaken to the off position." The pilot stated that after the accident she "never checked the position of the key (mags) during the emergency scenario."

Pilot Information

Certificate:	Private	Age:	57, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Valid Medical-w/ waivers/lim	Last FAA Medical Exam:	May 1, 2003
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	August 11, 2002
Flight Time:	962 hours (Total, all aircraft), 204 hours (Total, this make and model), 866 hours (Pilot In Command, all aircraft), 45 hours (Last 90 days, all aircraft), 24 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Extra Flugzeugbau	Registration:	N9PB
Model/Series:	EA200	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Aerobatic	Serial Number:	26
Landing Gear Type:	Tailwheel	Seats:	
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	AE10-360-AIE
Registered Owner:	David Underwood and Cynthia Lyons	Rated Power:	200 Horsepower
Operator:	Cynthia R. Lyons	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	ARR,712 ft msl	Distance from Accident Site:	
Observation Time:	17:45 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	27°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Sugar Grove, IL (ARR)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:		Type of Airspace:	Class D

Airport Information

Airport:	AURORA MUNI ARR	Runway Surface Type:	Concrete
Airport Elevation:	712 ft msl	Runway Surface Condition:	Dry
Runway Used:	9	IFR Approach:	None
Runway Length/Width:	6501 ft / 100 ft	VFR Approach/Landing:	Forced landing

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	41.771945,-88.475555

Administrative Information

Investigator In Charge (IIC):	Brannen, John
Additional Participating Persons:	Dennis Caravella; Federal Aviation Administration; West Chicago, IL
Original Publish Date:	July 29, 2004
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=58353

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).