



Aviation Investigation Final Report

Location:	Ste. Genevieve, Missouri	Accident Number:	CHI01LA278
Date & Time:	August 11, 2001, 19:00 Local	Registration:	N609CE
Aircraft:	Gremminger 532 Commander	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The gyrocopter nosed over during a forced landing following a loss of engine power while on downwind to land. The pilot reported he had made several flights during the day which included practicing forced landings. The pilot reported that he took off and stayed in the traffic pattern to land. He reported, "Turning onto the crosswind leg I noted the fuel level indication at one eighth of a tank and decided that this will be my last circuit for the day." The pilot reported he turned onto downwind and leveled off at an altitude of 200 feet above the ground. He reported that after 3 - 5 seconds the engine lost power. The pilot reported that due to the low altitude and the high sink rate, he was committed to an off airport landing. The pilot reported there was a bean field near the downwind leg which contained a barren area. He reported the barren area was wet with an area which looked dry. He made the landing on the section which looked dry. The pilot reported, "As the nose landing gear touched down there was a sensation of the aircraft's nose continuing down below normal ground roll attitude. At this point it became obvious that the aircraft was tipping over forward and to the left." The pilot reported that after the landing he discovered that there was damp mud under a thin layer of dry terrain. The pilot reported that two cups of fuel were drained from the fuel tank following the forced landing.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The inadequate fuel supply for the flight which resulted in fuel exhaustion. A factor associated with the accident was the low altitude and the soft terrain on which the forced landing was made.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL

Phase of Operation: APPROACH - VFR PATTERN - DOWNWIND

Findings

1. (C) FLUID,FUEL - EXHAUSTION
2. (C) FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND

Occurrence #2: FORCED LANDING

Phase of Operation: DESCENT - EMERGENCY

Findings

3. (F) ALTITUDE - LOW

Occurrence #3: NOSE OVER

Phase of Operation: LANDING - ROLL

Findings

4. (F) TERRAIN CONDITION - SOFT

Factual Information

On August 11, 2001, at 1900 central daylight time, a Gremminger 532 Commander gyroplane, nosed over during a forced landing following a loss of engine power while on downwind to land at the Genevieve Flying Club Airstrip, in Ste. Genevieve, Missouri. The pilot was not injured. The gyroplane was substantially damaged. The 14 CFR Part 91 personal flight was operating in visual meteorological conditions without a flight plan. The local flight originated in Ste. Genevieve, Missouri, at 1800.

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Pilot Information

Certificate:	Private	Age:	46,Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Center
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 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	May 11, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	May 12, 2001
Flight Time:	220 hours (Total, all aircraft), 58 hours (Total, this make and model), 156 hours (Pilot In Command, all aircraft), 16 hours (Last 90 days, all aircraft), 9 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Gremminger	Registration:	N609CE
Model/Series:	532 Commander	Aircraft Category:	Gyroplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	609
Landing Gear Type:	Tricycle	Seats:	1
Date/Type of Last Inspection:	June 16, 2001 Annual	Certified Max Gross Wt.:	800 lbs
Time Since Last Inspection:	10 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1701 Hrs	Engine Manufacturer:	Rotax
ELT:	Not installed	Engine Model/Series:	582
Registered Owner:	Kestutis L. Zigaitis	Rated Power:	65 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	SAR	Distance from Accident Site:	23 Nautical Miles
Observation Time:	19:46 Local	Direction from Accident Site:	50°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	0 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.01 inches Hg	Temperature/Dew Point:	26°C / 24°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Ste. Genevieve, MO (6MO2)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	18:00 Local	Type of Airspace:	Class G

Airport Information

Airport:	St. Genevieve Flying Club Arpt 6MO2	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		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:	37.970989,-90.03939(est)

Administrative Information

Investigator In Charge (IIC):	Sullivan, Pamela
Additional Participating Persons:	Larry Barkledge; FAA; St. Ann, MO
Original Publish Date:	November 23, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=53017

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](#).