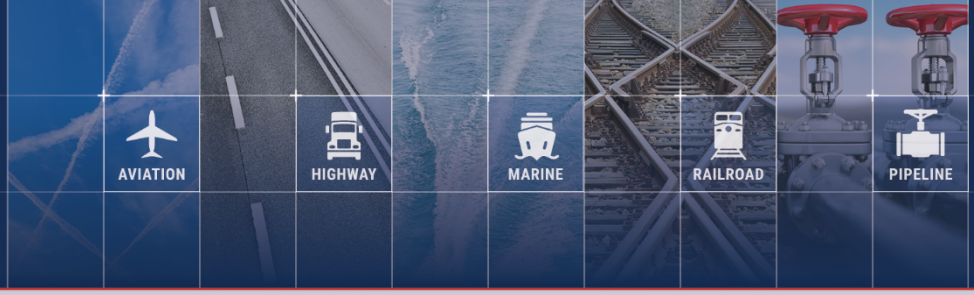

Aviation Investigation Factual Report

Location:	Brewton, Alabama	**Accident Number:**	ATL03LA037
Date & Time:	January 24, 2003, 09:13 Local	**Registration:**	N8YF
Aircraft:	Long 2000	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Instructional		

Factual Information

On January 24, 2003, at 0913 central standard time, a Long 2000 gyrocraft, N8YF, registered to a private owner, operating as a 14 CFR Part 91training flight, collided with the ground while maneuvering in the traffic pattern at Brewton Municipal Airport, Brewton, Alabama. Visual meteorological conditions prevailed and no flight plan was filed. The gyrocraft received substantial damage. The airline transport rated pilot was fatally injured. The flight originated from Brewton Municipal Airport, Brewton, Alabama, on January 24, 2003, at 0903.

A certified flight instructor stated he arrived at the airport around 0900 to conduct a training flight with the pilot. The flight was to conduct emergency procedures and to expose the pilot to the different flying characteristics of the gyrocraft with the doors on. He observed the pilot running up the gyrocraft and making 360-degree turns. He figured the pilot was calibrating a newly installed compass. He went inside the hangar and heard the pilot announce over the UNICOM radio about 10 minutes later that he was departing runway 18. Navy personnel who are co-located at the non-controlled airport advised the pilot on the UNICOM frequency that there was no known air traffic. The flight instructor went outside and observed the gyrocraft taking off downwind. He ran back inside the hangar and called the pilot on the radio with no response. He went back outside and saw the gyrocraft was on base for runway 18. He called the pilot and told him the wind was favoring 36 and to be careful because he had the cabin doors on. The gyrocraft was observed to turn final.

While on final approach, the pilot called the instructor and stated he was aborting the landing to runway 18, and was turning right to enter a downwind for runway 36. The instructor observed the gyrocraft make a turn and start climbing, so he went back inside the hangar. A few minutes later he heard the Navy calling the gyrocraft with no response. He became concerned and went outside and attempted contact with the pilot on a hand held radio; there was no response. He then observed firemen walking across the ramp toward runway 18 and runway 36. He also observed a fire truck in the grass, and then he heard on the radio the gyrocraft had crashed.

Examination of the wreckage revealed the crash debris line extended for about 300 feet on a heading of 180-degrees magnetic. The main rotor blades had collided with the propeller assembly, top of the maroon colored vertical stabilizer, and rudder assembly. Both main rotor blades were bent upward. The vertical stabilizer and rudder assembly separated from the tail boom assembly. The cabin area collided with the ground and the cabin came to rest in the upright position. The leading edge of both rotor blades was damaged. Maroon paint transfer was present on the bottom of both main rotor blades. Examination of the engine assembly revealed no anomalies.

Review of the RAF 2000 Gyroplane Flight Manual states, "Section II, Operating Limitations,

Normal Rotor Operating Range, *Note: LOAD FACTORS OF LESS THAN ONE G CAUSE A DELAY IN ROTOR RPM AND IF SUSTAINED COULD LEAD TO BLADE FLAPPING. (PILOT MUST MONITOR ROTOR TRACK TO STAY WITHIN PROPER LIMITS.)"

Review of information on file with the FAA Airman's Certification Division, Oklahoma City, Oklahoma, revealed the airline transport pilot was issued a airline transport pilot certificate on August 21, 2000, with ratings for airplane single engine land , multiengine land, and instrument airplane. The pilot held a flight engineer certificate issued on August 21, 2000, with ratings for turbojet powered. In addition the pilot was issued a flight instructor certificate on February 4, 1985, with ratings for airplane single engine land. The pilot was issued a repairman experimental aircraft builder certificate on October 11, 2002. The pilot held a first class medical certificate issued on January 17, 2003 with no restrictions. The pilot reported on the application for the first class medical that he had 10, 850 hours. It could not be determined when the pilot completed his last biennial flight review.

The Regional Medical Examiner, Alabama Department of Forensic Sciences, Mobile, Alabama, performed a postmortem examination of the pilot on January 25, 2003. The cause of death was blunt trauma. The Forensic Toxicology Research Section, Federal Aviation Administration, Oklahoma City, Oklahoma, performed postmortem toxicology of specimens from the pilot. The specimens were negative for carbon monoxide, cyanide, ethanol, and basic and acidic drugs.

Pilot Information

Certificate:	Airline transport; Commercial; Flight engineer; Flight instructor	**Age:**	51,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):		**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane single-engine	**Toxicology Performed:**	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	January 17, 2003
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	10850 hours (Total, all aircraft), 25 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Long	**Registration:**	N8YF
Model/Series:	2000	**Aircraft Category:**	Gyroplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	H2-01-12-519
Landing Gear Type:	Tricycle	**Seats:**	2
Date/Type of Last Inspection:	November 12, 2002 Condition	**Certified Max Gross Wt.:**	1540 lbs
Time Since Last Inspection:	24 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	69 Hrs at time of accident	**Engine Manufacturer:**	Subaru
ELT:	Not installed	**Engine Model/Series:**	EJ25
Registered Owner:	Jack D. Long	**Rated Power:**	165 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:	GZH,260 ft msl	**Distance from Accident Site:**	17 Nautical Miles
Observation Time:	09:53 Local	**Direction from Accident Site:**	360°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	9 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	30°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.57 inches Hg	**Temperature/Dew Point:**	7°C / 17°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Brewton, AL (12J)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	09:03 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Brewton Municipal 12J	**Runway Surface Type:**	Asphalt
Airport Elevation:	96 ft msl	**Runway Surface Condition:**	Unknown
Runway Used:	18	**IFR Approach:**	None
Runway Length/Width:	4100 ft / 150 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	31.051111,-87.067779

Administrative Information

Investigator In Charge (IIC):	Smith, Carrol
Additional Participating Persons:	Jack Clark; Birmingham FSDO; Vestavia Hills, AL
Report Date:	August 7, 2003
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=56402