



Aviation Investigation Factual Report

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| Location: | Wallisville, Texas | Accident Number: | CEN16LA015 |
| Date & Time: | October 17, 2015, 12:00 Local | Registration: | N3232Z |
| Aircraft: | BOBBY MARTIN AUTOGYRO MTO SPORT | Aircraft Damage: | Substantial |
| Defining Event: | Sys/Comp malf/fail (non-power) | Injuries: | 1 None |
| Flight Conducted Under: | Part 91: General aviation - Personal | | |

Factual Information

On October 17, 2015, about 1200 central daylight time, a Bobby Martin, AutoGyro MTO Sport gyroplane, N3232Z, impacted terrain in a remote swampy area near Wallisville, Texas. The pilot was not injured, and the gyroplane was substantially damaged. The gyroplane was registered to and operated by a private individual, as a 14 *Code of Federal Regulations* Part 91 personal flight. Day visual meteorological conditions (VMC) prevailed and a flight plan had not been filed. The gyroplane had departed Chambers County Airport (T00) Anhuac, Texas, about 1130 for a local flight.

The pilot took off to go sightseeing for about 30 to 45 minutes to look at the wetlands. He reported being about 250 to 300 ft. above the ground in straight and level flight when he heard and felt something break loose behind him, near where the engine is located. The gyroplane then developed a severe vibration. The pilot reduced power which reduced the vibration but resulted in the gyroplane descending. He added power again, but the gyroplane vibrated severely and wasn't regaining performance. Seeing that he would not make it back to a suitable landing location, the pilot selected a clear area in the swamp beneath him to land. During the forced landing, the gyroplane's right main landing gear sank into the swamp and the gyroplane rolled over onto its right side causing substantial damage to the main rotor blades and rotor mast.

A postaccident examination of the pusher propeller showed that one of the three carbon fiber blades had split and come apart. Further examination of the propeller blade showed one half of the blade missing for 3/4 of the outboard length, about 1.5 in. missing from the blade tip of the half that remained, two deep cuts in the leading edge, and a fracture at the blade root near the hub. The damage was consistent with an impact to the blade, however, no object that could have caused such damage was located.

Per the aircraft manufacturer, the propeller blade was constructed as two separate halves, bonded together prior to curing, with a foam filled core that bonded to the resin. The manufacturer was aware of two similar cases where a blade split open. Both involved where seat cushions came out of the aircraft and struck the propeller.

No other preaccident anomalies with the gyroplane were found.

Pilot Information

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| Certificate: | Private | Age: | 40,Male |
| Airplane Rating(s): | Single-engine land | Seat Occupied: | Front |
| Other Aircraft Rating(s): | None | Restraint Used: | 4-point |
| Instrument Rating(s): | None | Second Pilot Present: | No |
| Instructor Rating(s): | None | Toxicology Performed: | No |
| Medical Certification: | Class 3 With waivers/limitations | Last FAA Medical Exam: | April 10, 2014 |
| Occupational Pilot: | No | Last Flight Review or Equivalent: | September 1, 2015 |
| Flight Time: | (Estimated) 432 hours (Total, all aircraft), 132 hours (Total, this make and model) | | |

Aircraft and Owner/Operator Information

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|--------------------------------------|-----------------------------|---------------------------------------|-----------------|
| Aircraft Make: | BOBBY MARTIN | Registration: | N3232Z |
| Model/Series: | AUTOGYRO MTO SPORT | Aircraft Category: | Gyroplane |
| Year of Manufacture: | 2013 | Amateur Built: | Yes |
| Airworthiness Certificate: | Experimental (Special) | Serial Number: | M01054 |
| Landing Gear Type: | Tricycle | Seats: | 2 |
| Date/Type of Last Inspection: | July 1, 2015 Condition | Certified Max Gross Wt.: | 1102 lbs |
| Time Since Last Inspection: | | Engines: | 1 Reciprocating |
| Airframe Total Time: | 132 Hrs at time of accident | Engine Manufacturer: | Rotax |
| ELT: | | Engine Model/Series: | 914 UL |
| Registered Owner: | On file | Rated Power: | 115 Horsepower |
| Operator: | On file | Operating Certificate(s) Held: | None |

Meteorological Information and Flight Plan

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|---|----------------------------------|---|-------------------|
| Conditions at Accident Site: | Visual (VMC) | Condition of Light: | Day |
| Observation Facility, Elevation: | KEFD,32 ft msl | Distance from Accident Site: | 26 Nautical Miles |
| Observation Time: | 11:50 Local | Direction from Accident Site: | 245° |
| Lowest Cloud Condition: | 25000 ft AGL | Visibility | 10 miles |
| Lowest Ceiling: | Broken / 25000 ft AGL | Visibility (RVR): | |
| Wind Speed/Gusts: | 11 knots / None | Turbulence Type Forecast/Actual: | / |
| Wind Direction: | 50° | Turbulence Severity Forecast/Actual: | / |
| Altimeter Setting: | 30.28 inches Hg | Temperature/Dew Point: | 24°C / 5°C |
| Precipitation and Obscuration: | No Obscuration; No Precipitation | | |
| Departure Point: | Wallisville, TX (T00) | Type of Flight Plan Filed: | None |
| Destination: | Wallisville, TX (T00) | Type of Clearance: | None |
| Departure Time: | 11:30 Local | Type of Airspace: | Class G |

Airport Information

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|-----------------------------|---------------------|----------------------------------|----------------|
| Airport: | CHAMBERS COUNTY T00 | Runway Surface Type: | |
| Airport Elevation: | 21 ft msl | Runway Surface Condition: | Unknown |
| Runway Used: | | IFR Approach: | None |
| Runway Length/Width: | | VFR Approach/Landing: | Forced landing |

Wreckage and Impact Information

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|----------------------------|--------|-----------------------------|---------------------------|
| 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: | 29.801111,-94.709724(est) |

Administrative Information

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| Investigator In Charge (IIC): | Latson, Thomas |
| Additional Participating Persons: | Mark C Hopp; FAA Houston FSDO; Houston, TX Roger Knoll; (BFU) Bundesstelle für Flugunfalluntersuchung; Braunschweig |
| Report Date: | January 29, 2018 |
| Last Revision Date: | |
| Investigation Class: | Class |
| Note: | The NTSB did not travel to the scene of this accident. |
| Investigation Docket: | https://data.nts.gov/Docket?ProjectID=92196 |

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](#).