
National Transportation Safety Board - Aircraft Accident/Incident Database

| | | | | |
|--------------------------------------|---------------------|-------------|-----------------------|---------------------------------------|
| Accident Rpt# ERA18CA035 | 11/29/2017 1530 EST | Regis# N50F | Mechanicsville, VA | Apt: Woods Farm Airstrip VA50 |
| Acft Mk/Mdl DRIGGERS QUILLAN E TITAN | | Acft SN 175 | Acft Dmg: SUBSTANTIAL | Rpt Status: Prelim Prob Caus: Pending |
| | | Acft TT 495 | Fatal 0 Ser Inj 0 | Flt Conducted Under: FAR 091 |
| Opr Name: MYERS MERLIN WAYNE | | Opr dba: | | Aircraft Fire: NONE |

National Transportation Safety Board - Aircraft Accident/Incident Database

| | | | | |
|---|---------------------|---------------|-----------------------|--|
| Accident Rpt# CEN15LA350 | 08/10/2015 1300 CDT | Regis# N743SS | Midland, TX | Apt: Midland Airpark MDD |
| Acft Mk/Mdl JAL R DENNIS TRIXY PRINCESS | | Acft SN | Acft Dmg: SUBSTANTIAL | Rpt Status: Factual Prob Caus: Pending |
| Eng Mk/Mdl ROTAX 912 TI | | Acft TT 105 | Fatal 0 Ser Inj 0 | Flt Conducted Under: FAR 091 |
| Opr Name: TRACE R DENNIS | | Opr dba: | | Aircraft Fire: NONE |
| | | | | AW Cert: SPE |

Events

1. Initial climb - Loss of engine power (partial)

Narrative

On August 10, 2015, about 1300 central daylight time, a Dennis, Jal R, Trixy Princess, gyroplane, N743SS, impacted terrain 1 mile south of the Midland Airpark (MDD), Midland, Texas. The pilot and passenger sustained minor injuries. The gyroplane sustained substantial damage to the fuselage, tail surfaces, and rotor mast. 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 prevailed, and no flight plan was filed for the local flight. The gyroplane was departing MDD at the time of the accident.

A witness on the airport watched the gyroplane taxi to the runway intersection and takeoff. He said the temperature was 95-degrees Fahrenheit (F), and the passenger appeared to weigh in excess of 250 lbs. The witness also reported there was a sign posted at the runway intersection that read "No intersection takeoff."

The pilot said that the gyroplane was full of fuel and near the maximum gross weight when he began the takeoff at 50 knots and climbed to about 100 feet above ground level. The pilot then noticed that the airspeed had decayed to about 40 knots and he lowered the nose in an attempt to regain forward airspeed, but the gyroplane would not climb and would not accelerate. After making several turns at low altitude to avoid trees and other obstructions the airspeed was then about 30 knots and the pilot reduced engine power to make an off-airport forced landing in a city park. The gyroplane landed on the rear wheels first, bounced, and impacted on the nose gear. The nose gear separated, and the pilot lost directional control. The gyroplane then rolled to the right, the main rotor blades struck the ground, and the gyroplane came to rest on its right side. There was no fuel spill and no postimpact fire.

The passenger said they taxied onto the runway, "traveled a little ways," made a U-turn and stopped on the right side of the runway where the pilot engaged the rotor. The pilot told him that the rotor had to reach 200 rpm. The passenger watched the gauge on the top left of the pilot's seat back reach 200 rpm and the gyroplane took off heading south. After crossing a street, the gyroplane made a right turn and began descending toward a park. Just above the ground the passenger heard the pilot say, "Too heavy, too heavy." The passenger added that the gyroplane impacted the ground initially on the rear main landing gear and then "snapped" forward, rolled to the right, and skidded on the right side for about "6 to 8 feet," before coming to a stop.

Witnesses at the scene reported the engine was operating when the airplane impacted the ground.

An examination of the gyroplane, the gyroplane's engine, and other systems revealed no preimpact anomalies.

The gyrocopter was a Trixy Aviation Products GmbH (Austria) "Princess" model, and described as their top model, which is basically designed to operate with a closed cabin. This model, however, can be converted with an optional kit into a gyrocopter to fly with an open cabin. The aircraft is typically powered by a Rotax 912 engine; however, the accident aircraft engine had been modified by the addition of twin turbochargers to it.

At 1255 the Automated Surface Observation System at MDD reported wind 110 degrees at 5 knots, visibility 10 miles, clear skies, temperature 97 degrees F, dew point 55 degrees F, and altimeter 30.05 inches of Mercury. The airpark's elevation was 2,803 ft. mean sea level. The density altitude was calculated as 5,850 ft.

Per the Koch Chart in Federal Aviation Administration Pamphlet 8740-2, Density Altitude, the gyroplane's climb rate would have been decreased by 75 percent at the calculated density altitude. The pamphlet states that because high density altitude has particular implications for takeoff/climb performance and landing distance, pilots must be sure to determine the reported density altitude and check the appropriate aircraft performance charts carefully during preflight preparation.