



National Transportation Safety Board Aviation Accident Final Report

Location:	Molino, FL	Accident Number:	MIA02LA058
Date & Time:	02/01/2002, 1630 CST	Registration:	N140V
Aircraft:	Harleman Tornado II	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

According to witnesses, the powered glider was observed making a low pass down runway 36 of a private, sod agricultural airstrip. The aircraft next entered a left downwind leg for an approach and landing to the runway. While on final approach, the powered glider's undercarriage collided with static wires strung between two power transmission line towers, and the aircraft impacted the ground. The aircraft was destroyed and the pilot suffered fatal injuries. It is likely that the pilot was under continuing treatment for his bipolar disorder and sleep disorder at the time of his accident and may have been on two different antidepressants. Mirtazapine is substantially sedating, and interferes with certain skilled performance tasks. In addition, mirtazapine and fluoxetine may interact to cause severe restlessness, confusion, incoordination, abdominal pain, and other symptoms.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain obstacle clearance, resulting in the in-flight collision with a static wire and an uncontrolled descent and collision with the ground. A factor in the accident was the pilot's impairment resulting from the use of unapproved medication.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH

Findings

1. (C) CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
2. (F) IMPAIRMENT(DRUGS) - PILOT IN COMMAND
3. DEPRESSION - PILOT IN COMMAND
4. OTHER PSYCHOLOGICAL CONDITION - PILOT IN COMMAND
5. OBJECT - WIRE,STATIC

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - GROUND

Factual Information

On February 1, 2002, about 1630 central standard time, an experimental Harleman Titan Tornado II, motor glider, registered to a private individual, operating as a Title 14 CFR Part 91 personal flight, collided with a static line strung between the tops of power line support towers and crashed during an approach to a private airstrip near Molino, Florida. Visual meteorological conditions prevailed and no flight plan was filed. The aircraft received substantial damage and the private-rated glider pilot sustained fatal injuries. The aircraft departed Coastal Airport, Pensacola, Florida, about 30 minutes before the accident.

According to a brother of the pilot, an eyewitness stated that he observed the aircraft over fly the north-south oriented agricultural airstrip and make a left course reversal to enter a downwind leg and approach for a landing in a northerly direction. At about 700 feet south of the runway's southern threshold, the aircraft's fixed landing gear collided with one of two side by side static wires strung between the tops of two power transmission line towers, and the aircraft impacted the ground. The towers support east-west running power transmission lines that are easily seen and avoided, however, the static wires run above the power lines and are thinner in cross section.

According to an FAA inspector, two additional eyewitnesses stated that the aircraft actually made two approaches to the airstrip. The first approach and landing was uneventful. It was the second approach that resulted in the wire collision and plunge to the ground. According to the FAA aircraft registry report, N170V is classified as a fixed wing, single engine, amateur-built, experimental motor glider. According to the FAA airman's registry report, the pilot possessed a private-pilot certificate for gliders, and no medical certificate. According to Federal Air Regulation, 61.23, (b), "A person is not required to hold a medical certificate when exercising the privileges of a pilot certificate with a glider category rating." The pilot's first and only Application for Airman Medical Certificate and Student Pilot Certificate, completed on March 8, 1998, noted a history of bipolar disorder treated with Depakote (valproate) and insomnia treated with Ambien (zolpidem). The pilot was denied a medical certificate. The FAA instructs aviation medical examiners (AMEs) that the use of "mood ameliorating" medications is considered disqualifying.

According to the manufacturing manager for Titan Aircraft kits, the Tornado II can be built for use in numerous categories; (1) as a single place ultralight, (2) a 2-place ultralight trainer, (3) a standard experimental single or dual place light aircraft, or, (4) using the larger 26 foot higher aspect ratio wing, as a motor glider. Factory personnel had knowledge of the accident of N140V, and confirmed that factory records revealed the aircraft was built as a motor glider.

The Special Airworthiness Certificate issued to the builder/pilot classifies the aircraft model as a "Titan Tornado II MG." It could be assumed the "MG" meant motor-glider, however, according to FAA Order 8130.2D, under the heading, "Listing of Manned Free Balloon or Glider on Special Airworthiness Certificates Issued for Experimental Purposes", the proper denotation on the experimental airworthiness certificate, FAA Form 8130-7, should be as follows: "MANNED FREE BALLOON" or "GLIDER" will be placed in parentheses following "experimental" in the Category/Designation block. This procedure ensures the appropriate application of 14 CFR Part 61, Certification: Pilots, Flight Instructors, and Ground Instructors, concerning the medical requirements for the operation of such aircraft. Such an identification was not appended to the Form 8130-7 for the accident aircraft. A copy of the applicable parts of

FAR Part 21.191, as well as the Special Airworthiness Certificate for the accident aircraft are attachments to this report.

Postmortem examination of the pilot was conducted by Dr. William R. Bell, Associate Medical Examiner, District I, Florida, on February 2, 2002. The cause of death was attributed to multiple blunt force trauma sustained in an airplane accident. A toxicological examination was negative for ethanol in the blood. Tests were positive for fluoxetine and mirtazapine in the blood. The brand name for fluoxetine is Prozac and the brand name for mirtazapine is Remeron. Both of these prescription-only medications are used to treat mental depression. The wife of the pilot stated that the pilot used the Remeron for insomnia, and the Prozac for depression. The following warnings for the medications are stated, "Fluoxetine may cause drowsiness, restrict the ability to think clearly, and cause poor muscle control." For the compound, mirtazapine, the following warning is noted, "Mirtazapine may cause drowsiness or trouble in thinking. Dizziness, light-headedness, or fainting may occur". Material extracted from the pilot's medical records, as well as records of telephone conversations with the pilot's wife are attachments to this report.

Pilot Information

Certificate:	Private	Age:	52, Male
Airplane Rating(s):	None	Seat Occupied:	Front
Other Aircraft Rating(s):	Glider	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	None None	Last FAA Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	05/08/2001
Flight Time:	87 hours (Total, all aircraft), 44 hours (Total, this make and model), 60 hours (Pilot In Command, all aircraft), 18 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Harleman	Registration:	N140V
Model/Series:	Tornado II	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental	Serial Number:	D99220JCOHK0342
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	04/20/2000, Annual	Certified Max Gross Wt.:	1000 lbs
Time Since Last Inspection:	44 Hours	Engines:	1 Reciprocating
Airframe Total Time:	44 Hours at time of accident	Engine Manufacturer:	Rotax
ELT:	Installed, not activated	Engine Model/Series:	912 S
Registered Owner:	On file	Rated Power:	100 hp
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dusk
Observation Facility, Elevation:	PNS, 121 ft msl	Distance from Accident Site:	16 Nautical Miles
Observation Time:	1653 CST	Direction from Accident Site:	153°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	360°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.2 inches Hg	Temperature/Dew Point:	16° C / 8° C
Precipitation and Obscuration:			
Departure Point:	Beulah, FL (83J)	Type of Flight Plan Filed:	None
Destination:	Molino, FL	Type of Clearance:	None
Departure Time:	1610 CST	Type of Airspace:	Class G

Airport Information

Airport:	private agricultural field	Runway Surface Type:	Grass/turf
Airport Elevation:	200 ft	Runway Surface Condition:	Dry; Soft
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	2000 ft / 80 ft	VFR Approach/Landing:	Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	30.716667, -87.383333

Administrative Information

Investigator In Charge (IIC):	Alan C Stone	Report Date:	12/06/2002
Additional Participating Persons:	Mike Mitchell; FAA FSDO; Birmingham, AL		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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