



Aviation Investigation Factual Report

Location:	Pembroke Pines, Florida	Accident Number:	MIA02LA085
Date & Time:	April 18, 2002, 08:15 Local	Registration:	N98WG
Aircraft:	Grote Cruiser TR-4	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Fatal
Flight Conducted Under:	Part 91: General aviation - Personal		

Factual Information

On April 18, 2002, about 0815 eastern daylight time, a Grote Cruiser TR-4 homebuilt airplane, N98WG, registered to an individual, struck power lines while attempting a go-around at the North Perry Airport, Florida, and impacted in a residential area of Pembroke Pines, Florida. Visual meteorological conditions prevailed at the time. No flight plan was filed for the 14 CFR Part 91 personal flight. The airplane was destroyed. The private-rated pilot received fatal injuries, and there were no reported injuries to anyone on the ground. The flight had departed Kendall, Florida, en route to Pembroke Pines, about 0715.

According to the FAA controller at the air traffic control tower (ATCT) at the North Perry Airport, the flight was cleared for a straight-in approach to runway 9R, from about 10 miles west of the airport. At 0800, the pilot of N98WG called the North Perry Tower four different times. The Tower controller answered him each time, asking the pilot how he heard the tower. At 0803:20, the pilot answered "...loud and clear." The pilot was cleared for a straight-in approach to runway 9R, and to report 1 mile out. The pilot was asked by the controller, if he copied "...all of the...previous transmissions," and the pilot answered, "ok 98WG...niner right." At 0809:14, on the first approach the pilot started to go around just before the arrival end of the runway threshold. The pilot was cleared by the ATCT, for "right traffic," and return for a landing on runway 9R. On the second attempted landing he was cleared to land at 0811:46 and the pilot acknowledged the clearance. This was the last radio transmission.

According to the FAA, Air Traffic Control Specialist, Local Controller's personnel statement, he cleared the pilot the second time to land on base leg for runway 9R. The controller said the airplane "touched down past midfield than aborted his landing." The airplane "stayed low to the ground. He than made a "left turn" toward the north, and "started descending behind the trees."

The FAA, Air Traffic Control Specialist, Ground Controller's personnel statement, said about the same thing as the local controller except the ground controller said, that past midfield the airplane "lifted off," and was "low just above the trees." The airplane then turned "left like he was going to try and land on the road east of the field."

According to witnesses the airplane did not climb very high, and it appeared that it would not clear the trees at the end of the airport property. The airplane was at a low altitude when it turned left (north). At this point some of the witnesses saw smoke coming from the engine. While heading north at a low altitude the airplane struck power lines, fell to the ground, and impacted on the front lawn of a private residence.

A certified flight instructor, who witnessed the accident, while standing at the airport, said, the airplane "stayed low...approximately 20 feet off the ground...in ground effect" until well after

"D" taxiway, and then tried to climb. She said the airplane "did not get a very good climb." She remembered saying to herself, "...this guy needs to get up over those trees or he's going to crash." She "heard power," but felt that the engine was "not a good running engine," because the airplane "barley" made it over the trees. In addition, she said as he turned left, "black stream of smoke sank down" from the airplane. She said for a "brief second" there was that black smoke, and then nothing. For an instant, there was a "grayish tuft of smoke, dirt, etc, and than silence." She said that the turn he made before the crash was about 45 degrees to the north from the departure runway.

The airplane impacted with power lines about 100 feet above the ground and came to rest in the front yard of a private residence about 1 mile east of the airport. There was no post crash fire. A captain from the Pembroke Pines' Fire Department said that when he arrived at the crash scene about 20 gallons of fuel had come out of the left wing. When the FAA inspector arrived he found only a trace of fuel in the right tank and the fuel selector was selected to the right tank position. However, the fire captain wrote a statement that the fuel selector "was in the left position" upon his arrival at the crash site, and it was his personnel that moved to the "RIGHT" tank. A piece of cable from the power line was found imbedded into the left wing.

The wreckage was removed from the crash site and taken to the Fort Lauderdale Executive for a more detailed examination. On May 7, 2002, the engine from N98WG, was examined under the supervision of the NTSB.

The external examination of the engine revealed that the propeller flange had broken off the crankshaft. The engine mounts, and the number 1 intake pipe were broken. Before attempting to rotate the engine the fuel pump was removed. The fuel pump rotated freely by hand and the pump drive shaft was found intact. Fuel was found in all the fuel lines, the fuel pump, gascolator, and the fuel manifold valve. The fuel manifold valve screen and gascolator were found clean. A sample of fuel was tested for water using water finding paste, and no water was found. The electric boost pump was tested by applying electrical current to the pump, the pump operated without discrepancies. Both suction and pressure were noted. The engine was rotated by hand, and finger compression was noted on all the cylinders. Valve action was noted on all cylinders and continuity was noted throughout the engine. There was no evidence found to indicate a fire in the engine assembly.

All the cylinders were removed from the engine and an internal inspection was performed. Examination of the pistons, pins, piston rings, and internal components revealed no breakage, no abnormal wear, or any other discrepancies. Oil was present on all internal engine surfaces, and about 6 quarts of oil was drained from the engine. No metal particles were noted in the oil. The oil filter was cut open and was found free of contaminants. Both magnetos were rotated by hand, and both produced spark. The spark plugs were removed and no discrepancies were found. The top plugs were covered with oil, but fire department personnel said that they had to invert the engine during the rescue efforts.

The fuel pump, throttle/fuel metering unit, and 6-fuel injector nozzles were removed from the

engine and shipped to Teledyne Continental Motor's facilities in Mobile, Alabama, where they were flow bench tested, under the supervision of Paul Cox, NTSB Air Safety Investigator, Northeast Regional Office, Parsippany, New Jersey, on June 18, 2002. Other than a cracked housing at the fuel inlet fitting, all components flowed near factory specifications (See the copy of the TCM Flow Test Report, an attachment to this report).

Dr. Lance G. Davis performed an autopsy on the pilot, at the Medical Examiners Office, Fort Lauderdale, Florida, on May 1, 2002. According to the autopsy report the cause of death was "...Blunt Trauma...." No findings, which could be considered causal to the accident, were reported.

Toxicological tests were conducted at the Federal Aviation Administration, Research Laboratory, Oklahoma City, Oklahoma, and revealed, "No ethanol detected in Urine." The drug Acetaminophen 19.7 (ug/ml, ug/g) was found in the urine. Acetaminophen is an over-the-counter painkiller often known by the trade name Tylenol. It would not be expected to result in any impairment, and was not found in the blood. (See the Federal Aviation Administration's Toxicology Report, an attachment to this report).

The airplane was released to Mr. Larry Addison, Air and Sea Recovery Inc., on behalf of the owner's insurance company, on May 7, 2002. The fuel pump, throttle/fuel metering unit, and 6-fuel injector nozzles were released to Mr. Steve Smalley, of Air and Sea Recovery Inc., on behalf of the owner's insurance company, on September 4, 2002.

Pilot Information

Certificate:	Private	Age:	59, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	October 10, 2000
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	
Flight Time:	11000 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Grote	Registration:	N98WG
Model/Series:	Cruiser TR-4	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	Yes
Airworthiness Certificate:	Experimental (Special)	Serial Number:	4005
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	April 4, 2002 Condition	Certified Max Gross Wt.:	2400 lbs
Time Since Last Inspection:	91.5 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	310 Hrs at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-360-ES1B
Registered Owner:	Pulsar Aircraft Corp.	Rated Power:	210 Horsepower
Operator:	Andrew P. Holub	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KHWO,9 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	08:21 Local	Direction from Accident Site:	270°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	6 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:	100°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.15 inches Hg	Temperature/Dew Point:	25°C / 19°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Kendall, FL (TMB)	Type of Flight Plan Filed:	None
Destination:	Pembroke Pines, FL (HWO)	Type of Clearance:	None
Departure Time:	07:15 Local	Type of Airspace:	Class B

Airport Information

Airport:	North Perry HWO	Runway Surface Type:	Asphalt
Airport Elevation:	9 ft msl	Runway Surface Condition:	Dry
Runway Used:	9R	IFR Approach:	None
Runway Length/Width:	3000 ft / 100 ft	VFR Approach/Landing:	Go around

Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Fatal	Latitude, Longitude:	26.001388,-80.24028

Administrative Information

Investigator In Charge (IIC): Yurman, Alan J.
Additional Participating Persons: Peter Snead; FAA; Fort Lauderdale, FL

Report Date: December 11, 2002

Last Revision Date:

Investigation Class: [Class](#)

Note:

Investigation Docket: <https://data.nts.gov/Docket?ProjectID=54549>

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](#).