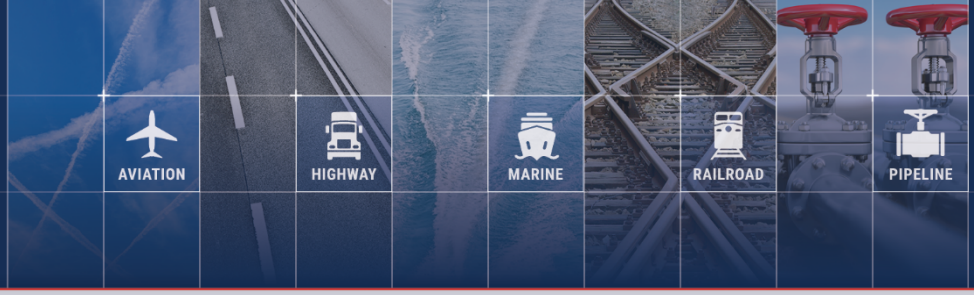

Aviation Investigation Final Report

Location:	ASHBORO, North Carolina	**Accident Number:**	ATL99LA093
Date & Time:	May 22, 1999, 14:50 Local	**Registration:**	N624RF
Aircraft:	Robert W. Ferrell TITAN TORNADO II	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot stated that approximately 24 miles from his destination, he noticed an area of thunderstorm activity between his position and his destination. The pilot reversed course and elected to land at an airport that he had overflown. During the course reversal the engine lost power. He decided to attempt a forced landing on a nearby paved road. During the forced landing, he applied full brakes and tried to stop the airplane before coming to a sharp curve in the road. He stated that he 'dropped a wheel off to the right of the road, hoping to slow down in the grass.' The airplane subsequently departed the road, colliding with a telephone pole and a mailbox, and rolled over on its left side. The post-accident examination of the airplane and the engine assembly failed to disclose a mechanical problem. During the engine examination, fuel was traced from the fuel tank to the carburetor. Several gallons of aviation fuel were recovered from the fuel system. The internal examination of the engine disclosed that the piston tops were clean, and a film of engine oil was on the cylinder walls. Engine drive train rotation was also established. A review of weather data disclosed that weather conditions were favorable for the formation of carburetor ice.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of engine power for undetermined reasons. Factors were weather conditions favorable for the formation of carburetor ice.

Findings

Occurrence #1: LOSS OF ENGINE POWER
Phase of Operation: MANEUVERING

Findings
1. (C) REASON FOR OCCURRENCE UNDETERMINED
2. (F) WEATHER CONDITION - CARBURETOR ICING CONDITIONS

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: EMERGENCY LANDING

Findings
3. OBJECT - UTILITY POLE
4. OBJECT - OTHER

Factual Information

On May 22, 1999, at 1450 Eastern Daylight Time, a Robert W. Farrell, Titan Tornado II, N624RF, collided with a telephone pole and a mailbox during an emergency landing on a road near Ashboro, North Carolina after an engine failure. The personal flight was operated by the pilot under the provisions of Title 14 CFR Part 91 with no flight plan filed. Visual meteorological conditions prevailed at the time of the accident. The airplane sustained substantial damage and the private pilot was not injured. The flight departed Greenville, South Carolina, at 1300 Eastern Daylight Time. The pilot reported that Liberty, North Carolina, was the flight's destination.

The pilot stated that approximately 24 miles from his destination, he noticed an area of thunderstorm activity between his position and his destination. At that point, the pilot reversed course and elected to land at an airport that he had flown over moments before. After the pilot executed an 180-degree turn, the engine lost power. The pilot decided to attempt an emergency landing on a nearby paved road. During landing, according to the pilot, he applied full brakes and tried to stop the airplane before coming to a sharp curve in the road. The pilot stated that he "dropped a wheel off to the right of the road, hoping to slow down in the grass." The airplane subsequently departed the road, colliding with a telephone pole and a mailbox, and rolled over on its left side.

Additionally, the pilot reported that as he cruised at 2500 feet, he noticed a lowering of the out side air temperature as the neared the location of the accident site. He stated that his decision to divert was based upon weather information received from flight watch.

The post-accident examination of the airplane and the engine assembly failed to disclose a mechanical problem. During the engine examination, fuel was traced from the fuel tank to the carburetor. Several gallons of aviation fuel were recovered from the fuel system. The internal examination of the engine disclosed that the piston tops were clean, and a film of engine oil was on the cylinder walls. Engine drive train rotation was also established.

A review of weather data disclosed that weather conditions were favorable for the formation of carburetor ice. Weather data from the nearest reporting facility showed a temperature of 82 degrees, and a dew point of 52 at the approximate time of the accident. The pilot reported approaching an area of thunderstorm activity.

Pilot Information

Certificate:	Private	**Age:**	36,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Front
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	**Last FAA Medical Exam:**	September 17, 1997
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	366 hours (Total, all aircraft), 112 hours (Total, this make and model), 366 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Robert W. Ferrell	**Registration:**	N624RF
Model/Series:	TITAN TORNADO II TITAN TORN	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	Yes
Airworthiness Certificate:	Experimental (Special)	**Serial Number:**	D94582COHK00
Landing Gear Type:	Tricycle	**Seats:**	
Date/Type of Last Inspection:	100 hour	**Certified Max Gross Wt.:**	
Time Since Last Inspection:	11 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	112 Hrs	**Engine Manufacturer:**	Rotax
ELT:	Not installed	**Engine Model/Series:**	582/C-GEAR
Registered Owner:	ROBERT W. FARRELL	**Rated Power:**	65 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	W44 ,673 ft msl	**Distance from Accident Site:**	4 Nautical Miles
Observation Time:	14:55 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Broken / 5500 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots / 17 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	230°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30 inches Hg	**Temperature/Dew Point:**	28°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	GREENVILLE , SC (GRD)	**Type of Flight Plan Filed:**	None
Destination:	LIBERTY , NC (2A5)	**Type of Clearance:**	None
Departure Time:	13:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

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:**	35.850341,-79.570877(est)

Administrative Information

Investigator In Charge (IIC):	Powell, Phillip
Additional Participating Persons:	STEPHEN A BLANSET; WINSTON SALEM , NC
Original Publish Date:	May 12, 2000
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=46350