Aviation Investigation Final Report

Location:	Lancaster, Texas	**Accident Number:**	CEN16LA016
Date & Time:	October 16, 2015, 19:40 Local	**Registration:**	N849CD
Aircraft:	CIRRUS DESIGN CORP SR22	**Aircraft Damage:**	Destroyed
Defining Event:	Controlled flight into terr/obj (CFIT)	**Injuries:**	1 Serious, 1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot reported that he was flying a night visual pattern to a nontowered airport. Due to another airplane on final approach, the pilot extended the downwind leg to create spacing. While on the extended final in a rural area with low lighting, the pilot descended the airplane well below a proper glidepath to the runway and struck an unlit high-voltage power line located about 1 mile from the runway. After feeling a jolt, the passenger deployed the airframe's parachute system. The airplane subsequently became suspended in a second set of power lines, and the pilot and passenger safely egressed the airplane.

At the time of the accident, the precision approach path indicators (PAPI) for both runways were inoperative due to maintenance. A notice to airmen (NOTAM) for the PAPI closure was active at the time of the accident, and the pilot was aware of the NOTAM. The dark conditions and extended final likely created a visual illusion in which the pilot thought he was higher than he was; without an operative PAPI, the pilot had limited external references to assist him in maintaining a proper glidepath during the approach.

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 a proper glidepath during a night visual approach, which resulted in impact with a power line. Contributing to the accident was an inoperative precision approach path indicator.

Findings

Personnel issues	Decision making/judgment - Pilot
Aircraft	Descent/approach/glide path - Not attained/maintained
Environmental issues	Wire - Awareness of condition
Personnel issues	Aircraft control - Pilot
Personnel issues	Monitoring environment - Pilot
Environmental issues	Dark - Effect on operation
Environmental issues	Approach lighting - Effect on operation

Factual Information

History of Flight

Approach-VFR pattern final	Controlled flight into terr/obj (CFIT) (Defining event)

On October 16, 2015, about 1940 central daylight time, a Cirrus SR22 airplane, N849CD, was destroyed after striking a power line during approach to the Lancaster Regional Airport (LNC), Lancaster, Texas. The pilot was not injured and the passenger was seriously injured. The airplane was registered to and operated by a private individual under the provisions of 14 Code of Federal Regulations Part 91 as a personal flight. Night visual meteorological conditions prevailed for the flight, which departed without a flight plan from the Mid-Way Regional Airport (JWY), Midlothian, Texas about 1850.

The pilot stated he was practicing a 'no flap' visual approach to Runway 31 at LNC and extended his downwind leg to create spacing from an aircraft that was on final approach. As the pilot flew toward Runway 31 on final approach, the airplane struck the upper static line of a set of unlit high voltage power lines, located about one mile prior to the threshold of Runway 31. After feeling a jolt, the passenger deployed the Cirrus Airframe Parachute System (CAPS). The airplane continued northwest about 200 feet and impacted a second set of high voltage power lines. The airplane and CAPS became entangled in the second set of power lines and the airplane came to rest suspended by the parachute, with the nose about three feet above the ground. The pilot and passenger exited through the pilot's side door and jumped to the ground. The airplane was subsequently consumed by a post-crash fire.

The pilot's final approach to Runway 31 was over a rural area with low cultural lighting. At the time of the accident, the precision approach path indicator (PAPI) for both runways was inoperative due to maintenance. The PAPI is a visual aid that provides glideslope information to help a pilot acquire and maintain the correct glide path to a runway. A Notice to Airman (NOTAM) concerning the inoperative PAPI was active, which the pilot stated he was aware of.

The airport manager and Texas Department of Transportation personnel reviewed obstacle clearance information for LNC. The closest tower to the power line struck was 592 feet msl, which was 105 feet above the touchdown zone elevation for Runway 31. This tower and other power lines/obstacles in the vicinity of LNC were below the 34:1 obstacle clearance plane required for a non-precision runway.

Pilot Information

Certificate:	Private	**Age:**	57,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
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:**	
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	July 22, 2015
Flight Time:	935 hours (Total, all aircraft), 265 hours (Total, this make and model), 870 hours (Pilot In Command, all aircraft), 36 hours (Last 90 days, all aircraft), 3 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CIRRUS DESIGN CORP	**Registration:**	N849CD
Model/Series:	SR22	**Aircraft Category:**	Airplane
Year of Manufacture:	2002	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	0224
Landing Gear Type:	Tricycle	**Seats:**	4
Date/Type of Last Inspection:	September 18, 2015 Annual	**Certified Max Gross Wt.:**	
Time Since Last Inspection:	3 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	832 Hrs at time of accident	**Engine Manufacturer:**	CONT MOTOR
ELT:	Installed, not activated	**Engine Model/Series:**	IO-550 SERIES
Registered Owner:	ATAEE MAHMOOD	**Rated Power:**	310 Horsepower
Operator:	ATAEE MAHMOOD	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night
Observation Facility, Elevation:	KLNC,501 ft msl	**Distance from Accident Site:**	2 Nautical Miles
Observation Time:	19:39 Local	**Direction from Accident Site:**	321°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	5 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	50°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.22 inches Hg	**Temperature/Dew Point:**	24°C / 7°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Waxahachie, TX (JWY)	**Type of Flight Plan Filed:**	None
Destination:	Lancaster, TX (LNC)	**Type of Clearance:**	None
Departure Time:	18:50 Local	**Type of Airspace:**	

Airport Information

Airport:	LANCASTER RGNL LNC	**Runway Surface Type:**	Asphalt
Airport Elevation:	501 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	31	**IFR Approach:**	None
Runway Length/Width:	6502 ft / 100 ft	**VFR Approach/Landing:**	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Serious	**Aircraft Fire:**	On-ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Serious, 1 None	**Latitude, Longitude:**	32.558887,-96.699722

Administrative Information

Investigator In Charge (IIC):	Folkerts, Michael
Additional Participating Persons:	Gavin Hill; Flight Standards District Office; North Texas, TX
Original Publish Date:	February 17, 2016
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB did not travel to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=92200