



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	Charleston, West Virginia	Accident Number:	GAA19CA525
Date & Time:	September 4, 2019, 23:30 Local	Registration:	N2408Q
Aircraft:	Cessna 182	Aircraft Damage:	Substantial
Defining Event:	Landing area undershoot	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that, while performing landings for night currency, he misjudged the approach, and the airplane landed short of the runway and then impacted the engineered materials arrestor system, which was about 370 ft lower than the approach end of the runway.

The airplane sustained substantial damage to the fuselage.

The pilot reported that there were no preaccident mechanical failures or malfunctions with the airplane that would have precluded normal operation.

Archived NOTAMs for the date of the accident reported that the runway's visual approach slope indicator and end lighting were out of service.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's improper approach path at night and his misjudgment of the landing point, which resulted in landing short of the runway and impact with the runway's engineered materials arrestor system.

Findings

Aircraft	Descent/approach/glide path - Not attained/maintained
Personnel issues	(general) - Pilot
Personnel issues	Decision making/judgment - Pilot
Environmental issues	(general) - Effect on operation
Environmental issues	Sloped/uneven terrain - Effect on operation
Environmental issues	Dark - Effect on personnel
Environmental issues	Visual approach aid - Contributed to outcome
Environmental issues	Approach lighting - Not specified

Factual Information

History of Flight

Landing	Landing area undershoot (Defining event)
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Pilot Information

Certificate:	Commercial; Flight instructor	Age:	77, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Unknown
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	BasicMed	Last FAA Medical Exam:	June 14, 2018
Occupational Pilot:	No	Last Flight Review or Equivalent:	July 24, 2019
Flight Time:	(Estimated) 2342 hours (Total, all aircraft), 1754 hours (Total, this make and model), 2137 hours (Pilot In Command, all aircraft), 1 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2408Q
Model/Series:	182 J	Aircraft Category:	Airplane
Year of Manufacture:	1966	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18257608
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	June 21, 2019 Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	4402.5 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	C91A installed, activated, did not aid in locating accident	Engine Model/Series:	O-470 SERIES
Registered Owner:	On file	Rated Power:	260 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Night
Observation Facility, Elevation:	KCRW, 982 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	03:23 Local	Direction from Accident Site:	44°
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:	Broken / 4300 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	3 knots / None	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	10°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	24°C / 16°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Charleston, WV (CRW)	Type of Flight Plan Filed:	None
Destination:	Charleston, WV (CRW)	Type of Clearance:	VFR
Departure Time:	23:15 Local	Type of Airspace:	Class C

Airport Information

Airport:	YEAGER CRW	Runway Surface Type:	Asphalt
Airport Elevation:	947 ft msl	Runway Surface Condition:	Dry
Runway Used:	05	IFR Approach:	None
Runway Length/Width:	6715 ft / 150 ft	VFR Approach/Landing:	Full stop

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	38.369445,-81.601943(est)

Administrative Information

Investigator In Charge (IIC):	Benhoff, Kathryn
Additional Participating Persons:	Ethan Dorothy; FAA; Charleston, WV
Original Publish Date:	February 11, 2020
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=100200

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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](#).