

NATIONAL TRANSPORTATION SAFETY BOARD PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

This form to be used for reporting civil and public aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location

Nearest City/Place: Albuquerque State: NM

ZIP: 87120 Country: Bernalillo

Latitude: 35:08:40 N Longitude: 106:47:57 W

(Enter in decimal degrees or degrees:minutes:seconds)

Accident/Incident Date/Time

Date: 10/29/2019 Local Time: ~0930
mm/dd/yyyy

Time Zone: MDT

Collision with Other Aircraft: ☐ Midair ☐ On-ground ☐ None

AIRCRAFT INFORMATION

Registration Number: N3016A

Manufacturer: Cessna

Model: 170B

Serial Number: 25660

Year of Manufacture: 1953

Amateur-Built: ☐ Yes ☐ No If Yes: ☐ Kit/Plans ☐ Original Design Make: _____

☒ IFR-Equipped and Certified

☐ Commercial Space Flight

☐ Unmanned Aircraft

Maximum Gross Weight: 2200 lbs

Weight at Time of Accident/Incident: ~1940 lbs

Number of Seats: 2 Flight Crew Seats: 2

Cabin Crew Seats: 0 Passenger Seats: 0

Number of Engines: 1

Category of Aircraft

- ☐ Airplane
- ☐ Balloon
- ☐ Blimp/Dirigible
- ☐ Glider
- ☐ Gyroplane
- ☐ Helicopter
- ☐ Powered Lift
- ☐ Rocket
- ☐ Ultralight
- ☐ Unknown

Type of Airworthiness Certificate

(Check all that apply)

Standard

- ☒ Normal
- ☐ Aerobatic
- ☐ Balloon
- ☐ Commuter
- ☐ Transport
- ☒ Utility

Special

- ☐ Restricted
- ☐ Limited
- ☐ Provisional
- ☐ Special Flight
- ☐ Experimental
- ☐ Special Light-Sport
- ☐ Experimental Light-Sport

☐ Certificate of Authorization or Waiver (COA)

☒ None

☐ Unknown

Landing Gear

(Check all that apply)

☐ Retractable

- ☐ Tricycle
- ☐ Amphibian
- ☐ Emergency Float
- ☐ Float
- ☐ Hull
- ☐ Other Launch/Recovery System
- ☐ None
- ☒ Tailwheel
- ☐ High Skid
- ☐ Skid
- ☐ Ski
- ☐ Ski/Wheel
- ☐ Unknown

Engine Type (Select one)

- ☐ Reciprocating
- ☐ Turbo Shaft
- ☐ Turbo Prop
- ☐ Turbo Jet
- ☐ Turbo Fan
- ☐ Electric
- ☐ Liquid Rocket
- ☐ Solid Rocket
- ☐ Hybrid Rocket
- ☐ None
- ☐ Unknown

Fuel System Type (Reciprocating)

- ☐ Carburetor
- ☐ Fuel-Injected

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. mm/dd/yyyy	Rated Power ☐ Horsepower or ☐ lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	Continental	C-145-2H	7762D-2-2	1953	145	39	50.5	215.5
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type

- ☐ 100-Hour
- ☐ AAIP
- ☐ Annual
- ☐ Continuous Airworthiness
- ☐ Conditional Inspection
- ☐ Unknown

Date Last Inspection: 02/27/2019
mm/dd/yyyy

Airframe Total Time: 3901.5 hrs

hours measured at (Select one)

- ☐ Last Inspection
- ☐ Time of Accident/Incident

Type of Maintenance Program (Select one)

- ☐ Annual
- ☐ Conditional (Amateur-built only)
- ☐ Manufacturer's Inspection Program
- ☐ Other Approved Inspection Program (AAIP)
- ☐ Continuous Airworthiness
- ☐ Other, specify: _____

Description of Fire Extinguishing System

- ☐ None
- ☐ Specify: Hand-held Halon

Propeller 1

- ☐ Fixed Pitch
- ☐ Controllable Pitch
- ☐ Ground Adjustable

Manufacturer: McCauley

Model: 1A170/DM7653

Propeller 2

- ☐ Fixed Pitch
- ☐ Controllable Pitch
- ☐ Ground Adjustable

Manufacturer: _____

Model: _____

ELT Installed: ☐ Yes ☐ No

If Yes:

ELT Manufacturer: ACK

Model or Part No.: 406ELT

TSO No.: ☐ OC91 (121.5 MHz) ☐ OC91a (121.5 MHz)
☐ OC126 (406 MHz)

Was ELT still mounted in aircraft? ☐ Yes ☐ No

Was ELT still connected to antenna? ☐ Yes ☐ No

Did ELT Activate? ☐ Yes ☐ No

If activated:

Did ELT Aid in Locating Aircraft? ☐ Yes ☐ No

If not activated:

- Indicate Reason:
- ☐ Impact Damage
 - ☐ Fire Damage
 - ☐ Battery Expired/Damaged
 - ☐ Unknown

Additional Equipment (Check all that apply)

- ☒ ADS-B
- ☐ Airframe Parachute
- ☐ Angle of Attack Indicator
- ☐ Autopilot
- ☐ Data Recorder
- ☒ Electronic Flight Bag or Handheld Device
- ☐ Electronic Multifunction Display
- ☐ Electronic Primary Flight Display
- ☒ Handheld GPS
- ☐ Heads Up Display
- ☒ Onboard Weather
- ☐ Satellite Tracking Device
- ☒ Stall Warning System
- ☐ Video Recording Device
- ☐ Other, Specify: ELT did not activate because loads did not meet activation

OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: Perry Aeronautical Services LLCCity: AlbuquerqueState: NMZIP: 87122Fractional Ownership Aircraft: ☐ Yes ☐ NoCountry: USA**Operator of Aircraft**☒ Same As Registered Owner☒ Same Address as Registered OwnerName: Perry Aeronautical Services, LLC

City: _____

Doing Business As: _____

State: _____

ZIP: _____

Air Carrier/Operator Designator (4 Character Code): _____

Country: _____

Operating Certificates Held

(Check all that apply)

- ☒ None
- ☐ Flag Carrier Operating Certificate (FAR 121)
- ☐ Supplemental
- ☐ Air Cargo
- ☐ Foreign Air Carriers (FAR 129)
- ☐ Rotorcraft External Load (FAR 133)
- ☐ Commuter Air Carrier (FAR 135)
- ☐ On-Demand Air Taxi (FAR 135)
- ☐ Commercial Air Tour (FAR 136)
- ☐ Agricultural Aircraft (FAR 137)
- ☐ Pilot School (FAR 141)
- ☐ Certificate of Authorization or Waiver (COA)
- ☐ Commercial Space Transportation Experimental Permit
- ☐ Commercial Space Transportation License
- ☐ Other Operator of Large Aircraft

Regulation Flight Conducted Under

- ☐ FAR 91 ☐ FAR 129 ☐ FAR 415
- ☐ FAR 103 ☐ FAR 133 ☐ FAR 431
- ☐ FAR 121 ☐ FAR 135 ☐ FAR 435
- ☐ FAR 125 ☐ FAR 137 ☐ FAR 437
- ☐ FAR 91 Special Flight
- ☐ Non-US, Commercial
- ☐ Non-US, Non-commercial
- ☐ Public Aircraft (Select one)
- ☐ Armed Forces
- ☐ Federal
- ☐ State
- ☐ Local
- ☐ Unknown

Revenue Operation for FAR 121, 125, 129, 135

(Select one for each group)

- ☐ Scheduled or Commuter ☐ Domestic
- ☐ Non-Scheduled or Air Taxi ☐ International
- ☐ Passenger
- ☐ Cargo
- ☐ Mail Contract Only

Purpose of Flight for FAR 91, 103, 133, 137

(Select one)

- ☐ Aerial Application ☐ Firefighting ☐ Unknown
- ☐ Aerial Observation ☐ Flight Test
- ☐ Air Drop ☐ Glider Tow
- ☐ Air Race/Show ☐ Instructional
- ☐ Banner Tow ☐ Other Work Use
- ☐ Business ☐ Personal
- ☐ Executive/Corporate ☐ Positioning
- ☐ External Load ☐ Skydiving
- ☐ Ferry

Revenue Sightseeing Flight☐ Yes ☐ No**Air Medical Flight**☐ Yes ☐ No**AIRPORT INFORMATION (Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)**Airport Name: Double Eagle IIDistance From Airport Center: ~0.2 smAirport Identifier: KAEGDirection From Airport: ~270 degrees trueProximity to Airport: ☐ Off Airport/Airstrip ☐ On Airport/Airstrip ☐ N/AAirport Elevation: 5837 ft. msl**Runway Information**Runway ID: 22 (L/R/C) Length: 7398 ft Width: 100 ft**Runway/Landing Surface (Check all that apply)**

- ☒ Asphalt ☐ Grass/Turf ☐ Macadam ☐ Water
- ☐ Concrete ☐ Gravel ☐ Metal/Wood
- ☐ Dirt ☐ Ice ☐ Snow ☐ Unknown

Condition of Runway/Landing Surface (Check all that apply)

- ☒ Dry ☐ Snow-Compacted ☐ Water-Calm
- ☐ Holes ☐ Snow-Crusted ☐ Water-Choppy
- ☐ Ice Covered ☐ Snow-Dry ☐ Water-Glassy
- ☐ Rough ☐ Snow-Wet ☐ Wet
- ☐ Rubber Deposits ☐ Soft
- ☐ Slush-Covered ☐ Vegetation ☐ Unknown

Approach/Departure Segment (Select one)

- ☐ Taxi ☐ VFR Departure ☐ On Instrument Approach ☐ Downwind ☐ Low Approach
- ☐ Takeoff ☐ IFR Departure Procedure/Clearance ☐ Landing ☐ Base ☐ Go Around
- ☐ Initial Climb ☐ Aborted Landing (after touchdown) ☐ Crosswind ☐ Unknown

IFR Approach (Check all that apply)

- ☒ None
- ☐ ADF/NDB ☐ PAR ☐ MLS ☐ Practice
- ☐ SDF ☐ Sidestep ☐ LDA ☐ GPS
- ☐ VOR/TVOR ☐ ILS ☐ ASR ☐ Visual
- ☐ VOR/DME ☐ Localizer Only ☐ Contact
- ☐ TACAN ☐ LOC-back course ☐ Circling
- ☐ RNAV ☐ Unknown

VFR Approach (Check all that apply)

- ☐ None
- ☐ Traffic Pattern ☐ Stop and Go
- ☐ Straight-In ☒ Touch and Go
- ☐ Valley/Terrain Following ☐ Simulated Forced Landing
- ☐ Go Around ☐ Forced Landing
- ☐ Full Stop ☐ Precautionary Landing
- ☐ Unknown

"FLIGHT CREWMEMBER 1" INFORMATION

"Flight Crewmember 1" Responsibilities at the Time of Accident/Incident

☐ Pilot
 ☐ Co-Pilot
 ☐ Student Pilot
 ☐ Flight Instructor
 ☐ Check Pilot
 ☐ Flight Engineer
 ☐ Other Flight Crew

"Flight Crewmember 1" was pilot flying ☐ Yes ☒ No

"Flight Crewmember 1" Identification

First Name: Richard

City of Residence: Albuquerque

Middle Initial: L

State: NM ZIP: 87122

Last Name: Perry

Country: USA

Age at time of Accident/Incident: 73 Date of Birth: [REDACTED] mm/dd/yyyy

Certificate Number: [REDACTED]

Degree of Injury

☐ None ☐ Fatal
☐ Minor ☐ Unknown
☐ Serious

Seat Occupied

☐ Left ☐ Front ☐ Unknown
☐ Right ☐ Rear
☐ Center ☐ Single

Restraint Type

Available

☐ None
☐ Lap only
☐ 3-point
☐ 4-point
☐ 5-point
☐ Unknown

Used

☐ None
☐ Lap only
☐ 3-point
☐ 4-point
☐ 5-point
☐ Unknown

Inflatable Restraints

☒ Not Installed
☐ Installed
☐ Not Deployed
☐ Deployed
☐ Unknown

Pilot Certificate(s) (Check all that apply)

☐ None ☒ Flight Instructor ☒ Commercial ☐ US Military
☒ Private ☐ Recreational ☒ Airline Transport ☐ Foreign
☐ Student ☐ Sport ☐ Flight Engineer

Principal Occupation

☐ Pilot
☐ Other
☐ Unknown

Medical Certificate

☐ None ☐ Class 3
☐ Class 1 ☐ Driver's License (Sport Pilot only)
☐ Class 2 ☐ Unknown

Medical Certificate Validity

☐ Without limitations/waivers ☐ Unknown
☐ With limitations/waivers ☐ N/A
☐ Special Issuance

Date of Last Medical

12/09/2019
 mm/dd/yyyy

Medical Certificate Limitations

Must have available classes for near vision. Not valid for any class after 12/09/2020

Medical Certificate Special Issuance

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks:

08/13/2019
 mm/dd/yyyy

Flight Review Aircraft

Make: Cessna

Model: R172K

Airplane Rating(s)

(Check all that apply)
☐ None
☒ Single-Engine Land
☐ Single-Engine Sea
☒ Multiengine Land
☐ Multiengine Sea

Other Aircraft Rating(s)

(Check all that apply)
☐ None
☐ Airship
☐ Balloon
☒ Glider
☐ Gyroplane
☐ Helicopter
☐ Powered Lift

Instrument Rating(s)

(Check all that apply)
☐ None
☒ Airplane
☐ Helicopter
☐ Powered Lift

Instructor Rating(s)

(Check all that apply)
☐ None ☒ Instrument Airplane
☒ Airplane Single-Engine ☐ Instrument Helicopter
☒ Airplane Multi-Engine ☐ Helicopter
☐ Gyroplane ☐ Glider
☐ Powered Lift ☐ Sport

Type Ratings

None

Student Endorsements (Include dates)

None

Flight Time (Enter appropriate number of hours in each box)	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multiengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time	7041	589	3490	3518	508	167	515		34	
Pilot in Command (PIC)	6220	589	~3400	~2700						
Time as Instructor	3172	100+	1000+	1000+						
This Make/Model										
Last 90 Days	67.5	17.1	67.5		2.6		1.8			
Last 30 Days	12.3	0	12.3		0		0			
Last 24 Hours	1.2	0	1.2		0		0			

ADDITIONAL FLIGHT CREWMEMBERS (Exclusive of cabin crew, complete the following information)							
Crew Name and Address First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____				Seat Occupied ☐ Left ☐ Center ☐ Right ☐ Front ☐ Rear ☐ Single ☐ Unknown		Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer				Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No		Total Flight Time at the Time of this Accident/Incident: _____ hrs					
Crew Name and Address First Name: _____ City of Residence: _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____				Seat Occupied ☐ Left ☐ Center ☐ Right ☐ Front ☐ Rear ☐ Single ☐ Unknown		Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	
Pilot Certificate(s) (Check all that apply) ☐ None ☐ Flight Instructor ☐ Commercial ☐ US Military ☐ Private ☐ Recreational ☐ Airline Transport ☐ Foreign ☐ Student ☐ Sport ☐ Flight Engineer				Restraint Type: Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	
Type Rating/Endorsement for Accident/Incident Aircraft? ☐ Yes ☐ No		Total Flight Time at the Time of this Accident/Incident: _____ hrs					
PASSENGER(S) / OTHER PERSONNEL (Include cabin crew; continue on separate sheet if necessary)							
Name and Address First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other		Seat ☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Restraint Type Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	Age ☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown
Name and Address First Name: _____ City : _____ Middle Initial: _____ State: _____ ZIP: _____ Last Name: _____ Country: _____ ☐ Crew ☐ Passenger ☐ Other		Seat ☐ Left ☐ Center ☐ Right ☐ Unknown Row: _____	Injury ☐ None ☐ Minor ☐ Serious ☐ Fatal ☐ Unknown	Restraint Type Available ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown Used ☐ None ☐ Lap Only ☐ 3-point ☐ 4-point ☐ 5-point ☐ Unknown		Inflatable Restraints ☐ Not Installed ☐ Installed ☐ Not Deployed ☐ Deployed ☐ Unknown	Age ☐ Under 5 years <i>If Under 5,</i> ☐ Child Restraint ☐ Lap-Held ☐ Unknown
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FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KAEG</u> City: <u>Albuquerque</u> State: <u>NM</u> Country: <u>USA</u>	Time of Departure Time: <u>~0825</u> Time Zone: <u>MDT</u>	Destination Airport ID: <u>KAEG</u> City: <u>Albuquerque</u> State: <u>NM</u> Country: <u>USA</u>	Type Flight Plan Filed ☐ None ☐ VFR/IFR ☐ Company VFR ☐ IFR ☐ Military VFR ☐ Unknown ☐ VFR Activated? ☐ Yes ☐ No ☐ Unknown
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Type of ATC Clearance/Service (Check all that apply)				
☐ None	☐ Special VFR	☐ Special IFR	☐ VFR Flight Following	☐ Cruise
☒ VFR	☐ IFR	☐ VFR On Top	☐ Traffic Advisory	☐ Unknown / NA

Airspace where the accident/incident occurred (Check all that apply)			Altitude of In-Flight Occurrence: _____ ft msl
☐ Class A	☐ Class G	☐ Military Operations Area (MOA)	☐ Special
☐ Class B	☐ Demo Area	☐ Airport Advisory Area	☐ Air Traffic Control Area
☐ Class C	☐ Warning Area	☐ Jet Training Area	☐ Unknown
☒ Class D	☐ Prohibited Area	☐ TRSA	
☐ Class E	☐ Restricted Area	☐ FAR 93	

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply)	Weather Observation Facility
☒ National Weather Service ☐ Flight Service Station ☐ TV/Radio ☒ Automated Report ☐ Commercial Weather Service (DUATS) ☒ On-Board Weather	Facility ID: <u>KAEG Tower</u> Observation Time: <u>~0920</u> Time Zone: <u>MDT</u> Distance from Accident Site: <u>0</u> nm Direction from Accident Site: <u>0</u> degrees true

Basic Conditions ☐ VMC ☐ IMC ☐ Unknown	Light Condition ☐ Dawn ☐ Dusk ☐ Dark Night ☐ Unknown ☐ Day ☐ Night ☐ Bright Night
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Sky/Lowest Cloud Condition ☐ Clear ☐ Thin Broken ☐ Few ☐ Thin Overcast ☐ Partial Obscuration ☐ Unknown ☐ Scattered Lowest Cloud Condition Height <u>above 12,000</u> ft agl	Ceiling ☐ None (Clear) ☐ Obscured ☐ Broken ☐ Indefinite ☐ Overcast ☐ Unknown Ceiling Height _____ ft agl	Temperature: <u>unk</u> (C) or _____ (F) Dew Point: <u>unk</u> (C) or _____ (F) Altimeter Setting: <u>unk</u> in. Hg or _____ MB
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Wind Direction ☒ Variable -or- Direction: _____ degrees true	Wind Speed ☐ Calm ☒ Light and Variable -or- Speed: _____ kts	Wind Gusts ☒ Not Gusting -or- Speed: _____ kts	Visibility <u>10+</u> miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ ft
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Intensity of Precipitation ☐ Light ☐ Moderate ☐ Heavy ☐ N/A ☐ Unknown	Type of Precipitation (Check all that apply)	Restriction to Visibility (Check all that apply)
	☒ None ☐ Drizzle ☐ Freezing Rain ☐ Rain ☐ Ice Pellets ☐ Snow Shower ☐ Snow ☐ Snow Pellets ☐ Ice Pellets Shower ☐ Hail ☐ Snow Grains ☐ Freezing Drizzle ☐ Rain Showers ☐ Ice Crystals	☒ None ☐ Fog ☐ Blowing Dust ☐ Ground Fog ☐ Blowing Sand ☐ Haze ☐ Blowing Snow ☐ Ice Fog ☐ Blowing Spray ☐ Smoke ☐ Dust ☐ Unknown

Icing Forecast	Icing Actual	Turbulence																																						
<table border="0"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td>☐ None</td> <td>☐ N/A</td> </tr> <tr> <td>☐ Trace</td> <td>☐ Rime</td> </tr> <tr> <td>☐ Light</td> <td>☐ Clear</td> </tr> <tr> <td>☐ Moderate</td> <td>☐ Mixed</td> </tr> <tr> <td>☐ Severe</td> <td>☐ Unknown</td> </tr> <tr> <td>☐ Unknown</td> <td></td> </tr> </table>	Amount	Type	☐ None	☐ N/A	☐ Trace	☐ Rime	☐ Light	☐ Clear	☐ Moderate	☐ Mixed	☐ Severe	☐ Unknown	☐ Unknown		<table border="0"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td>☐ None</td> <td>☐ N/A</td> </tr> <tr> <td>☐ Trace</td> <td>☐ Rime</td> </tr> <tr> <td>☐ Light</td> <td>☐ Clear</td> </tr> <tr> <td>☐ Moderate</td> <td>☐ Mixed</td> </tr> <tr> <td>☐ Severe</td> <td>☐ Unknown</td> </tr> <tr> <td>☐ Unknown</td> <td></td> </tr> </table>	Amount	Type	☐ None	☐ N/A	☐ Trace	☐ Rime	☐ Light	☐ Clear	☐ Moderate	☐ Mixed	☐ Severe	☐ Unknown	☐ Unknown		<table border="0"> <tr> <th>Type (Check all that apply)</th> <th>Severity</th> </tr> <tr> <td>☒ None</td> <td>☐ Light</td> </tr> <tr> <td>☐ Clear Air</td> <td>☐ Moderate</td> </tr> <tr> <td>☐ Terrain-Induced</td> <td>☐ Severe</td> </tr> <tr> <td>☐ Convective Turbulence</td> <td>☐ Extreme</td> </tr> </table>	Type (Check all that apply)	Severity	☒ None	☐ Light	☐ Clear Air	☐ Moderate	☐ Terrain-Induced	☐ Severe	☐ Convective Turbulence	☐ Extreme
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NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident:

unknown, none relevant

DAMAGE TO AIRCRAFT AND OTHER PROPERTY**Aircraft Damage**

- ☐ None ☐ Substantial
☐ Minor ☐ Destroyed
 ☐ Unknown

Aircraft Fire

- ☐ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Fire at Unknown Time
☐ On-Ground ☐ Unknown

Aircraft Explosion

- ☐ None ☐ Both Ground and In-Flight
☐ In-Flight ☐ Explosion at Unknown Time
☐ On-Ground ☐ Unknown

Description of Damage to Aircraft and Other Property *(Use additional sheet if necessary)*

Right wingtip outboard of station 190 deformed upward with corresponding deformation of the right aileron, right elevator tip deformed upward slightly, right main landing gear leg deformed 1 degree down, right wheel outboard rim worn by contact with the runway surface, right hubcap shattered. Right seat pilot's headset earpiece detached from headband by contact with right door frame.

NARRATIVE HISTORY OF FLIGHT *(Please type or print in ink)*

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State departure time and location, services obtained, and intended destination. Provide as much detail as possible.

Right seat pilot: Richard L. Perry, Instructor Pilot, PIC

Left seat pilot: David S. Roth, Pilot Receiving Training

This was an instructional mission to be flown in the traffic pattern. The training objective was to review and reinforce full stall landing skills and introduce and begin practice of wheel landing skills for the Pilot Receiving Training. The Pilot Receiving Training was working toward a tailwheel endorsement as the ultimate training objective.

Weather Conditions: Day VFR, Winds light and variable.

Landings were flown in closed traffic to runway 22, 7,398' long by 100' wide with Precision markings. The incident occurred on the takeoff portion of a touch-and-go landing. Prior to the incident, the Pilot Receiving Training had performed a wheel landing, touching down near the centerline at approximately 1000 feet from the threshold. Directional control during the landing was good. The Pilot Receiving Training held the tailwheel off the runway as speed dissipated and lowered the tailwheel to the runway. The aircraft had slowed to approximately 25 mph IAS. The Instructor Pilot turned off the carburetor heat, checked the trim position for takeoff setting, and directed the Pilot Receiving Training to begin the takeoff portion of the touch-and-go procedure as the aircraft was approximately 2000 feet from the approach end of the runway, near the centerline.

The Pilot Receiving Training advanced the power smoothly to full throttle, correcting appropriately for P-factor and slipstream effects. The tailwheel was still on the ground as the aircraft accelerated past approximately 30 mph IAS when the Instructor Pilot directed the Pilot Receiving Training to raise the tail to an appropriate attitude for acceleration and to simulate procedures for a gusty crosswind condition -- as previously briefed. As the Pilot Receiving Training raised the tail to a level attitude, he did not apply right rudder pressure to compensate for the gyroscopic effects. The nose of the aircraft deviated to the left, and the aircraft tracked left of the centerline. The Pilot Receiving Training then added right rudder as an appropriate correction for the deviation, but he held the correction too long, and the aircraft began to deviate to the right, crossing the centerline of the runway. The Pilot Receiving Training applied left rudder as an appropriate correction, but again held the correction too long. The nose of the aircraft again began deviating to the left, and the aircraft crossed the centerline again. At this point, the Instructor Pilot intervened, abruptly applying full right rudder to stop the deviation and stabilize the aircraft on a straight course slightly to the left of the runway heading prior to correcting the heading to parallel the runway heading. The aircraft did not react to this correction by the Instructor Pilot but continued the left deviation. The Instructor Pilot applied left aileron as an additional corrective action, without effect.

The left yaw condition continued to diverge, the side loads on the landing gear caused to aircraft to bank right with the deflections of the landing gear and the rolling of the tire on the wheel resulting in the outboard rim of the right wheel contacting the runway surface. The right wingtip touched the runway lightly with the fuselage at a yaw angle of approximately 25 degrees left. The Instructor Pilot continued the corrective control inputs but as the aircraft approached the left edge of the runway the increasing side loads resulted in the right wingtip contacting the runway a second time with the fuselage yaw angle at approximately 60 degrees left. The Instructor Pilot reduced/checked the power to idle before the aircraft departed the paved surface. As the right main landing gear tire entered the dirt after leaving the runway surface at a high angle of yaw (approximately 60 degrees left), the right tire and wheel dug into the soft dirt, stopping the aircraft abruptly, causing the right wingtip to strike the ground hard enough to deform the structure near the tip, causing the right elevator tip to contact the runway surface, and causing the Instructor Pilot's head to strike the right door frame, breaking the Instructor Pilot's headset. The aircraft dropped to its normal resting attitude on three wheels with the main landing gear tires off the runway and the tailwheel tire on the runway surface. The final resting place of the aircraft was approximately 3,000 feet from the runway threshold, on a heading of approximately 085 degrees magnetic. The Instructor Pilot secured the engine, turned off the fuel selector, determined there were no immediate hazards and no injuries, notified the tower of the situation, and turned off the electrical power. The aircrew members egressed the aircraft. NARRATIVE CONTINUED ON PAGE 11

RECOMMENDATION (How could this accident/incident have been prevented?)

Operator/Owner Safety Recommendation

The stamped sheet metal rudder/brake pedals originally installed on this aircraft and other Cessna aircraft of the period make it problematic for pilots with large feet to apply rudder inputs independent of brake inputs. A pronounced and intentional upward deflection of the ankles is required to avoid applying pressure to the upper portion of the pedal during rudder actuation. The Operator/Owner had identified this issue immediately after procuring the aircraft and had installed removeable 1" blocks on the lower portion of the rudder/brake pedals to reduce the required ankle deflection and allow for applying rudder controls with less likelihood of simultaneously applying brake inputs. This accommodation has been successful in avoiding problems until this mishap.

The cast aluminum rudder/brake pedals of more modern Cessna aircraft have a different geometry and have presented no problems for the mishap Instructor Pilot when flying Cessna aircraft of more recent manufacture. These later-model pedals have been installed on some earlier Cessna aircraft when pedal wear or other damage has made replacement of the rudder pedals necessary. The Owner/Operator will investigate the geometry differences between the pedal designs and, if the differences seem sufficient to reduce the potential for a repeat of this mishap, will consider installing different rudder pedals on the mishap aircraft before resuming training in that aircraft.

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)Was there Mechanical Malfunction/Failure? ☐ Yes ☒ No*(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)***Total Time/Cycles
On Part**

_____ Hours

_____ Cycles

**Time Since This Part
Inspected/Overhauled**

_____ Hours

FUEL & SERVICES INFORMATION**Fuel on Board at Last Takeoff***(Convert from pounds, as necessary)*

~27 Gallons

Fuel Type☐ 80/87☐ 115/145☐ Jet B☐ Other, specify _____☐ 100 Low Lead☐ Jet A☐ JP8☐ 100/130☐ Jet A-1☐ Automotive**Other Services, if Any, Prior to Departure****EVACUATION OF AIRCRAFT**Was an emergency evacuation of the aircraft performed? ☐ Yes ☒ No**Method of Exit** – Describe how the occupants exited and how many occupants evacuated each location

Each pilot evacuated the aircraft using the door through which he entered.

OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for other aircraft)**Aircraft Registration Number**

Manufacturer: _____**Model:** _____**Damage to Other Aircraft**☐ Destroyed☐ Minor☐ Substantial☐ None**Registered Owner of Other Aircraft**

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

Pilot of Other Aircraft

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

ADDITIONAL INFORMATION (Please type or print in ink)

Use this space if additional space is needed for any answers.

Analysis

When the Instructor Pilot applied full right rudder to correct for the left yaw deviation, it is likely that the aft-moving left rudder/brake pedal caused the Pilot Receiving Training's left foot to put pressure on the left brake. This left brake pressure likely counteracted the effect of the right rudder deflection, reducing the effectiveness of the right rudder in correcting the deviation and divergence to the left.

I, David S. Roth, Mishap Pilot Receiving Training, concur with the information provided in this report.”

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE**Date of this Report**12/20/2019*mm/dd/yyyy***Name of Pilot/Operator:** Richard L. Perry, **Title:** Mishap Instructor Pilot**Signature:** _____**-- or --** ☒ Check here to electronically sign this document**If a Person Other than Pilot/Operator is Filing Report****Name:** David S. Roth**Title:** Mishap Pilot Receiving Training**Signature:** _____**-- or --** ☒ Check here to electronically sign this document**FOR NTSB USE ONLY****NTSB Accident/Incident No.**GAA20CA082**Reviewed by NTSB Regional Office**GAAID**Name of Investigator**HICKS**Date Report Received**20DEC2019