



Aviation Investigation Final Report

Location:	West Columbia, South Carolina	Accident Number:	ERA18LA213
Date & Time:	July 25, 2018, 13:41 Local	Registration:	C-GRFF
Aircraft:	Piper PA46	Aircraft Damage:	Substantial
Defining Event:	Course deviation	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The private pilot was taxiing the airplane and receiving progressive taxi instructions from an air traffic controller. The pilot indicated that he asked if he should turn onto the taxiway and was instructed to do so. However, instead of proceeding on the taxiway, which had a continuous painted yellow centerline, the pilot turned left onto a vehicle service road, which had a painted white "stop" marking and an adjacent stop sign. The underside of the airplane's left wing subsequently struck the stop sign, which resulted in substantial damage.

Probable Cause and Findings

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

The pilot's inadvertent navigation onto a service road instead of a taxiway, which resulted in a collision with a stop sign.

Findings

Personnel issues	Incorrect action performance - Pilot
Environmental issues	Sign/marker - Contributed to outcome

Factual Information

History of Flight

Taxi	Course deviation (Defining event)
Taxi	Collision with terr/obj (non-CFIT)

On July 25, 2018, at 1341 eastern daylight time, a Piper PA-46 350P, C-GRFF, was substantially damaged during collision with a stop sign while taxiing onto a service road at Columbia Metropolitan Airport (CAE) West Columbia, South Carolina. Visual meteorological conditions prevailed, and an instrument flight rules flight plan was filed for the personal flight which was conducted under the provisions of 14 Code of Federal Regulations Part 91.

According to the pilot, the CAE ground controller was providing progressive taxi instructions and asked the controller if he should "turn left here at the D6" taxiway and was told "to do so." After turning, the underside of the airplane's left wing struck a "low" stop sign.

Examination of an aerial images and photos of the area where the airplane struck the stop sign revealed that the airplane was taxiing from an aircraft parking ramp area toward a perpendicular taxiway (Delta). A vehicle service road ran parallel to taxiway Delta, and both were intersected by taxiway Delta 6 (see Figure 1). A centerline was painted on the ramp area that transitioned through taxiway Delta 6 and onto taxiway Delta. There was no taxiway centerline painted on the service road. The stop sign was located in a grassy area adjacent to the service road.

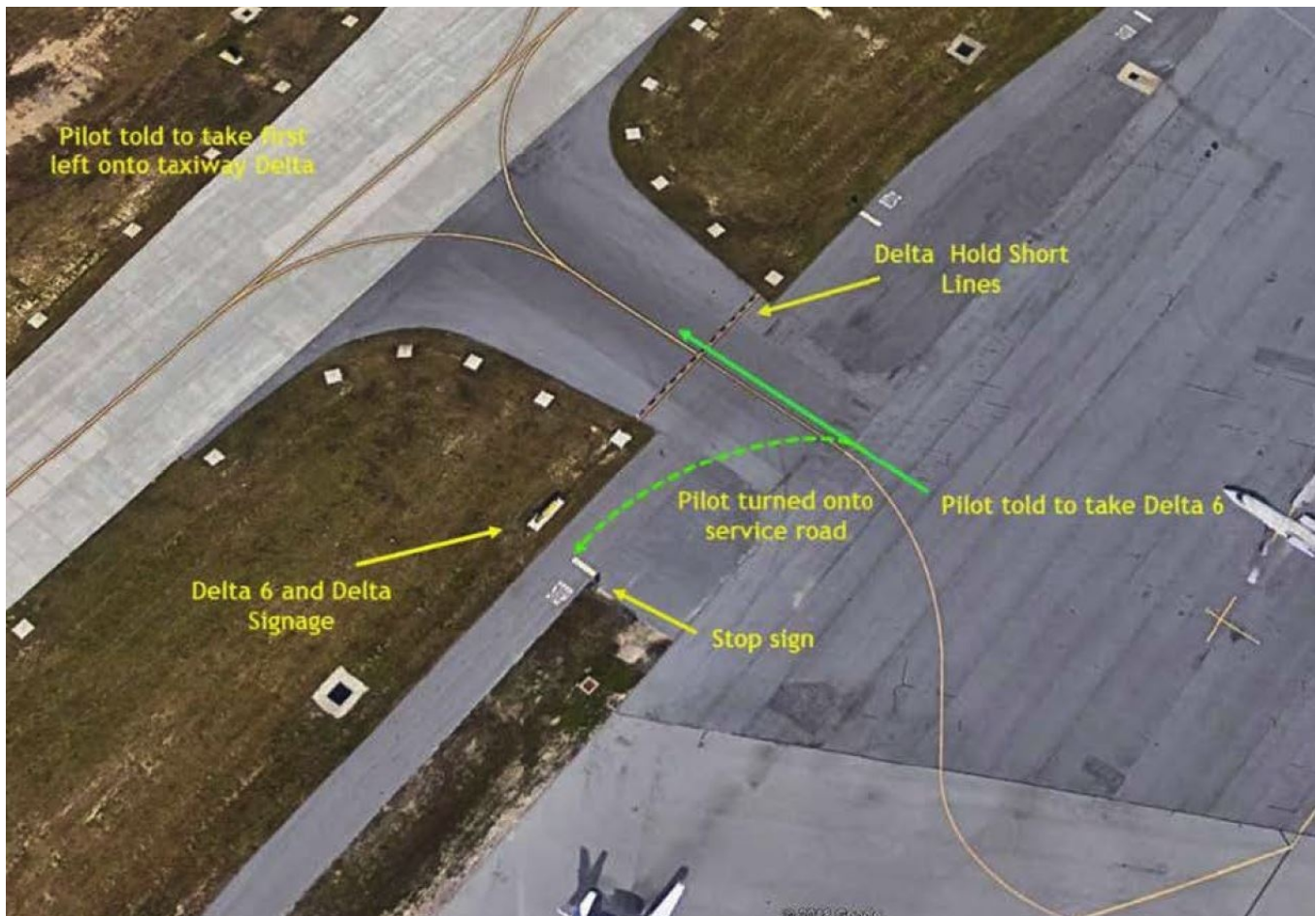


Figure 1 – Annotated aerial photograph of the area where the airplane was taxiing.

The pilot held a private pilot certificate with ratings for airplane single engine land and instrument airplane. His third-class medical certificate was issued September 19, 2016, and he reported 985 total hours of flight experience, 200 hours of which was in the accident airplane make and model.

At 1356, the weather recorded at CAE included scattered cloud layers at 3,900 feet and 5,000 feet, a broken ceiling at 25,000 feet and winds from 260 degrees at 7 knots. The temperature was 31°C, and the dew point was 22°C. The altimeter setting was 29.89 inches of mercury.

Examination of photographs revealed that the left wing sustained substantial damage. The pilot reported that there were no mechanical deficiencies with the airplane that would have prevented normal operation.

Pilot Information

Certificate:	Private	Age:	60, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	September 19, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	985 hours (Total, all aircraft), 200 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	C-GRFF
Model/Series:	PA46 350P	Aircraft Category:	Airplane
Year of Manufacture:	2014	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	4636617
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	March 6, 2018 Annual	Certified Max Gross Wt.:	4339 lbs
Time Since Last Inspection:	42 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	383 Hrs	Engine Manufacturer:	Lycoming
ELT:	Installed, not activated	Engine Model/Series:	TIO-540-AE2A
Registered Owner:	On file	Rated Power:	350 Horsepower
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KCAE,225 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	17:56 Local	Direction from Accident Site:	21°
Lowest Cloud Condition:	Scattered / 3900 ft AGL	Visibility	10 miles
Lowest Ceiling:	Broken / 25000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29.88 inches Hg	Temperature/Dew Point:	31°C / 22°C
Precipitation and Obscuration:	In the vicinity - Thunderstorm -		
Departure Point:	West Columbia, SC (CAE)	Type of Flight Plan Filed:	IFR
Destination:	(CNY3)	Type of Clearance:	IFR
Departure Time:		Type of Airspace:	Class C

Airport Information

Airport:	COLUMBIA METROPOLITAN CAE	Runway Surface Type:	
Airport Elevation:	236 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	33.938888,-81.119445(est)

Administrative Information

Investigator In Charge (IIC):	Rayner, Brian
Additional Participating Persons:	Karrie E Bowden; FAA/FSDO; West Columbia, SC
Original Publish Date:	April 20, 2020
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=98035

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