



Aviation Investigation Final Report

Location:	Quincy, Washington	Accident Number:	SEA01LA136
Date & Time:	July 19, 2001, 10:00 Local	Registration:	N64426
Aircraft:	Cessna 180K	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor, who was sitting in the right seat, was demonstrating his short-field landing technique to the owner of the aircraft. Just as the aircraft touched down, it encountered a dust devil/whirlwind. The rotational force imparted to the aircraft by the whirlwind made it hard to control at its low forward speed. The instructor pilot elected not to execute a go-around, and even with both rudder and differential brake application, he was not able to keep the aircraft from departing the side of the runway. After it departed the runway, the aircraft encountered soft, sandy terrain, and nosed over onto its back.

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 directional control during the landing roll. Factors include an encounter with a dust devil/whirlwind.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - DUST DEVIL/WHIRLWIND

Factual Information

On July 19, 2001, approximately 1000 Pacific daylight time, a Cessna 180K, N64426, nosed over during the landing roll at Quincy Municipal Airport, Quincy, Washington. The certified flight instructor and his airline transport pilot rated student were not injured, but the aircraft, which was owned and operated by the student, sustained substantial damage. The 14 CFR Part 91 instructional flight, which departed Wenatchee, Washington, about 90 minutes prior to the accident, had been operating in the Quincy traffic pattern for about 10 minutes. Visual meteorological conditions prevailed at the time. No flight plan had been filed. There was no report of an ELT activation.

According to the instructor, who was sitting in the right seat, he was demonstrating a short-field landing while the aircraft owner, who was in the left seat, observed. The aircraft reportedly touched down on the desired spot in a three-point attitude, tracking straight down the runway. Then, just after touchdown (1-2 seconds), the aircraft veered to the right "rather quickly," and the instructor aggressively applied left rudder. When he found that left full rudder did not stop the aircraft from veering further to the right, the pilot also applied left brake. According to the pilot, at that point in time, "Due to the speed of the event, adding power and getting out of the situation did not look like a prudent course of action." The aircraft continued to veer to the right, departed the runway, and encountered soft, sandy terrain. The pilot reported that when it rolled onto the soft terrain, even though he had the yoke full aft, the aircraft's main gear sank into the terrain and it nosed over onto its back.

Further discussions with the instructor pilot revealed that soon after the accident, he spotted a number of dust devils in the area. It was his opinion that the aircraft had encountered a whirlwind just as it touched down, and that because of the slow forward speed of the aircraft, the rotational forces created by the wind made the aircraft hard to control.

According to the FAA Operations Inspector who responded to the accident, there was no evidence of any malfunction in the aircraft's tailwheel steering system or main gear braking systems.

Flight instructor Information

Certificate:	Airline transport; Flight instructor	Age:	42, Male
Airplane Rating(s):	Single-engine land; Single-engine sea; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	Glider	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane multi-engine; Airplane single-engine; Glider; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	June 13, 2001
Occupational Pilot:	UNK	Last Flight Review or Equivalent:	December 8, 2000
Flight Time:	18500 hours (Total, all aircraft), 350 hours (Total, this make and model), 17500 hours (Pilot In Command, all aircraft), 250 hours (Last 90 days, all aircraft), 90 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N64426
Model/Series:	180K	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	18052897
Landing Gear Type:	Tailwheel	Seats:	4
Date/Type of Last Inspection:	Annual	Certified Max Gross Wt.:	2800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	O-470
Registered Owner:	Donald B Keown	Rated Power:	230 Horsepower
Operator:		Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	20 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	29°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(80WA)	Type of Flight Plan Filed:	None
Destination:	Quincy, WA	Type of Clearance:	None
Departure Time:		Type of Airspace:	Class G

Airport Information

Airport:	Quincy Municipal 80WA	Runway Surface Type:	Asphalt
Airport Elevation:	1271 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	3660 ft / 50 ft	VFR Approach/Landing:	Full stop

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:	47.169666,-119.799301(est)

Administrative Information

Investigator In Charge (IIC):	Anderson, Kurt
Additional Participating Persons:	Dave Avey; Spokane FSDO
Original Publish Date:	November 1, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=52786

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