Aviation Investigation Final Report

Location:	Pacific City, Oregon	**Accident Number:**	SEA02LA041
Date & Time:	February 15, 2002, 12:20 Local	**Registration:**	N2434C
Aircraft:	Cessna 180	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

While landing on a 30 foot-wide runway in steady crosswind conditions, the aircraft encountered an unexpected gust of wind. Although the pilot tried to correct for the unfavorable wind conditions, his attempts to do so were not adequate to keep the aircraft from departing the side of the runway. After departing the runway surface, the aircraft encountered a swampy area, and nosed over in about nine inches of water. The pilot later realized that wind funneling between buildings and trees located alongside the runway had created a funnel effect that produced areas of crosswind gusts.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate compensation for local wind conditions during the landing roll. Factors include unfavorable winds, and a swampy area adjacent to the runway.

Findings

Occurrence #1: NOSE OVER
Phase of Operation: LANDING - ROLL

Findings
1. (C) COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND
2. (F) WEATHER CONDITION - UNFAVORABLE WIND
3. (F) TERRAIN CONDITION - SWAMPY

Factual Information

On February 15, 2002, at 1220 Pacific standard time, a Cessna 180, N2434C, nosed over during the landing roll at Pacific City State Airport, Pacific City, Oregon. The private pilot and his passenger were not injured, but the aircraft, which is owned and operated by the pilot, sustained substantial damage. The 14 CFR Part 91 pleasure flight, which departed McMinnville, Oregon, about 30 minutes earlier, was being operated in visual meteorological conditions. No flight plan had been filed. There was no report of an ELT activation.

According to the pilot, while he was on final, he could tell that there was a fairly constant crosswind of a little over 10 knots, accompanied by "...some light turbulence." When the aircraft was about 30 feet above the ground, the pilot felt "...the burble caused by the wind disturbed by buildings and trees, but no gusts." A few moments after touching down on the centerline of the 30 foot-wide runway, the aircraft was hit by "a strong gust of wind," and veered toward the right side of the runway. Although the pilot attempted to correct for the unfavorable wind conditions, his attempts to do so were not adequate, and the aircraft ultimately departed the right side of the runway. After leaving the runway surface, the aircraft encountered an adjacent swampy area and nosed over in about nine inches of water.

The pilot later stated that immediately after the accident, he realized that the openings between the buildings and trees had caused a "funnel effect," which resulted in limited areas of gusty winds across the runway surface.

Pilot Information

Certificate:	Private	**Age:**	52,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 3 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	October 3, 2001
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	April 28, 2000
Flight Time:	842 hours (Total, all aircraft), 393 hours (Total, this make and model), 767 hours (Pilot In Command, all aircraft), 46 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N2434C
Model/Series:	180	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	30734
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	Annual	**Certified Max Gross Wt.:**	2650 lbs
Time Since Last Inspection:		**Engines:**	1 Reciprocating
Airframe Total Time:	2019 Hrs at time of accident	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	O-470-J
Registered Owner:	John M. Rockwood	**Rated Power:**	235 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**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	12 knots / 20 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	235°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:		**Temperature/Dew Point:**	13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	McMinnville, OR (MMV)	**Type of Flight Plan Filed:**	None
Destination:	Pacific City, OR (PFC)	**Type of Clearance:**	None
Departure Time:	11:50 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	Pacific City PFC	**Runway Surface Type:**	Asphalt
Airport Elevation:	40 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	14	**IFR Approach:**	None
Runway Length/Width:	1875 ft / 30 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:**	45.190174,-123.960571(est)

Administrative Information

Investigator In Charge (IIC):	Anderson, Orrin
Additional Participating Persons:	Thomas McGar; Portland FSDO
Original Publish Date:	May 21, 2002
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=54213