Aviation Investigation Final Report

Location:	FORT WORTH, Texas	**Accident Number:**	FTW98LA077
Date & Time:	December 28, 1997, 14:00 Local	**Registration:**	N121KS
Aircraft:	Cessna 180J	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

As the tailwheel-equipped airplane was being taxied toward the centerline of runway 34R, it turned to the left, nosed down, and came to rest balanced on the left main landing gear, the left wing tip, and the propeller spinner. According to the pilot, the left turn was due to a wind gust that 'hit the airplane and spun it counterclockwise.' Following the nose down, the pilot got out of the airplane and attempted to hold the airplane; however, the wind blew the airplane over onto its back. The pilot indicated that the winds at the time of the accident were from 280 to 310 degrees at approximately 20 to 25 knots with gusts to 30 knots. At 1353, seven minutes prior to the accident, the recorded winds at the airport were from a true heading of 300 degrees at 24 knots with gusts to 31 knots. The crosswind component for a takeoff on runway 34R (true heading 352 degrees) with a wind from 300 degrees at 30 knots was calculated to be 23 knots. According to the Pilot's Operating Handbook, the maximum demonstrated crosswind velocity for the airplane was 12 knots. The pilot stated that the accident could have been prevented by 'selection of runway that more aligns with current winds.'

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's improper planning/decision, by allowing the airplane to get in a situation, where he could not compensate for wind conditions. A related factor was the gusty crosswind.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: TAXI - TO TAKEOFF

Findings
1. (C) PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. (F) WEATHER CONDITION - CROSSWIND
3. (F) WEATHER CONDITION - GUSTS
4. COMPENSATION FOR WIND CONDITIONS - NOT POSSIBLE

Occurrence #2: NOSE OVER
Phase of Operation: TAXI

Factual Information

On December 28, 1997, at 1400 central standard time, a Cessna 180J tailwheel-equipped airplane, N121KS, registered to and operated by a private individual, was substantially damaged when it nosed over while taxiing for takeoff on runway 34R at Fort Worth Meacham International Airport, Texas. The commercial pilot, the sole occupant, was not injured. No flight plan was filed and visual meteorological conditions prevailed for the Title 14 CFR Part 91 personal cross country flight which was originating at the time of the accident.

During a telephone interview, conducted by the NTSB investigator-in-charge, the pilot reported that prior to contacting ground control, he listened to the ATIS (Automatic Terminal Information Service) which indicated that the winds were from the northwest at 15 to 25 knots. The pilot further reported that he was concerned about the wind and requested to takeoff from the intersection of taxiway D and runway 34R. He was cleared for takeoff from the intersection and taxied toward the centerline of the runway. At this point, a wind gust "hit the airplane and spun it counterclockwise." The airplane nosed down and came to rest balanced on the left main landing gear, the left wing tip, and the propeller spinner. The pilot got out of the airplane and attempted to hold the airplane; however, the wind blew the airplane over onto its back. The pilot, who holds an airframe and powerplant mechanic certificate, reported that both wings, the vertical stabilizer, and the rudder sustained structural damage.

In the Pilot/Operator Aircraft Accident Report (NTSB Form 6120.1/2), the pilot indicated that the winds at the time of the accident were from 280 to 310 degrees at approximately 20 to 25 knots with gusts to 30 knots. At 1353, seven minutes prior to the accident, the recorded winds at the airport were from a true heading of 300 degrees at 24 knots with gusts to 31 knots. The crosswind component for a takeoff on runway 34R (true heading 352 degrees) with a wind from 300 degrees at 30 knots was calculated at 23 knots. According to the Cessna 180J Pilot's Operating Handbook, the maximum demonstrated crosswind velocity for the airplane was 12 knots. In the section of the Pilot/Operator Aircraft Accident Report entitled "Recommendation (How Could This Accident Have Been Prevented)," the pilot wrote, "selection of runway that more aligns with current winds."

Pilot Information

Certificate:	Commercial	**Age:**	53,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	October 14, 1996
Occupational Pilot:	UNK	**Last Flight Review or Equivalent:**	
Flight Time:	700 hours (Total, all aircraft), 200 hours (Total, this make and model), 10 hours (Last 90 days, all aircraft), 10 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N121KS
Model/Series:	180J 180J	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	18052683
Landing Gear Type:	Tailwheel	**Seats:**	4
Date/Type of Last Inspection:	December 12, 1997 Annual	**Certified Max Gross Wt.:**	2700 lbs
Time Since Last Inspection:	10 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	2200 Hrs	**Engine Manufacturer:**	Continental
ELT:		**Engine Model/Series:**	O-470-S
Registered Owner:	DON H. MONTGOMERY	**Rated Power:**	230 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	FTW ,710 ft msl	**Distance from Accident Site:**	
Observation Time:	13:53 Local	**Direction from Accident Site:**	
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Broken / 4300 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	24 knots / 31 knots	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	300°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	(FTW)	**Type of Flight Plan Filed:**	None
Destination:	WHITEWRIGHT , TX (48TX)	**Type of Clearance:**	VFR
Departure Time:	14:00 Local	**Type of Airspace:**	Class D

Airport Information

Airport:	FORT WORTH MEACHAM INTL FTW	**Runway Surface Type:**	Concrete
Airport Elevation:	710 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	34R	**IFR Approach:**	None
Runway Length/Width:	7501 ft / 150 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	32.820655,-97.360656(est)

Administrative Information

Investigator In Charge (IIC):	Snyder, Georgia
Additional Participating Persons:	FRANK GENTILE; FORT WORTH , TX
Original Publish Date:	October 30, 1998
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=20502