



National Transportation Safety Board Aviation Accident Final Report

Location:	OAKLEY, KS	Accident Number:	CHI00LA149
Date & Time:	06/01/2000, 0700 CDT	Registration:	N2329Y
Aircraft:	Piper PA-36-200	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 None
Flight Conducted Under:	Part 137: Agricultural		

Analysis

The airplane veered off of runway 34 in a sharp turn to the right while back taxiing for takeoff. The pilot reported that there were light to moderate rain showers located 15-20 miles west/southwest of the airport prior to his preflighting the airplane. He also reported that the wind velocity changed in magnitude and direction during the taxi. The pilot also reported that following the accident, the winds increased from the east/northeast to 12-15 mph and that there was convective activity in the area.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the directional control not maintained by the pilot. The thunderstorm, quartering tailwind/crosswind and the weather evaluation by the pilot were contributing factors.

Findings

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

Findings

1. (F) WEATHER CONDITION - THUNDERSTORM
2. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
3. (F) WEATHER CONDITION - TAILWIND
4. (F) WEATHER EVALUATION - INADEQUATE - PILOT IN COMMAND
5. (F) WEATHER CONDITION - CROSSWIND

Factual Information

On June 1, 2000, at 0700 central daylight time, a Piper PA-36-200, N2329Y, operated by Cooperative Agricultural Services Incorporated, was substantially damaged during a back taxi for takeoff on runway 34 (5,000 feet by 75 feet, asphalt) at the Oakley Municipal Airport, Oakley, Kansas. Visual meteorological conditions prevailed at the time accident. The 14 CFR Part 137 aerial application flight was not operating on a flight plan. The commercial pilot reported no injuries. The local flight was originating at the time of the accident.

In a written statement, the pilot reported the following: "...I arrived at the airplane's hanger at 6:10 a.m. to preflight the plane and pushed it out of the hanger to load it for spraying that morning. Winds were light and variable out of the north/northwest at 5 to 7 mph. Thin cloud cover with light to moderate rain showers to the west/southwest of the airport about 15-20 miles away. The direction I was to spray was about 20 miles southeast of the airport. After pre-flight and loading the plane I checked the radar and wind speed/direction again and conditions were still favorable for flight. I started the plane, let it warm up, all systems and controls were functioning correctly and fully operational. I then let the plane idle while I checked weather conditions once more. The wind was a little more east/northeast about 8-10 mph with light showers about 10 miles away to the southeast. I proceeded to taxi to the runway, did my run-up again found all systems and control operating correctly and rolled out on the runway 16 to back taxi for departure on 34. I was proceeding very slowly with my feet on the rudders and stick to the left to compensate for the crosswind. I had rolled less than 300 ft. when the tail whipped suddenly to the right and the airplane veered to the left. I instantly tried to bring it back to center to no avail. The plane left the runway in a sharp turn to the right... Once back at the hanger, I checked radar and winds finding winds had increased to E-NE 12-15 mph with a moderately strong thunderstorm in the area."

Weather radar indicated an area of 40 dBZ returns to be present in the area at 0715.

The accident airplane was equipped with a tailwheel landing gear arrangement. Advisory Circular 61-21A, Flight Training Handbook, states under Taxiing-Tailwheel Type Airplanes, "An airplane with a tailwheel landing gear arrangement has a tendency to "weathervane" or turn into the wind while it is being taxied. This tendency is much greater than in airplanes equipped with nosewheels... The tendency of the tailwheel-type airplane to weathervane is greatest while taxiing directly crosswind: consequently, directional control is somewhat difficult. Without brakes, it is almost impossible to keep the airplane from turning into any wind of considerable velocity since the airplane's rudder control capability may be inadequate to counteract the crosswind. In taxiing downwind the tendency to weathervane is increased, due to the tailwind decreasing the effectiveness of the flight controls. This requires a more positive use of the rudder and the brakes, particularly if the wind velocity is above that of a light breeze. Unless the field is soft, or very rough, it is best when taxiing downwind to hold the elevator control in neutral or slightly forward."

Pilot Information

Certificate:	Commercial	Age:	38, Male
Airplane Rating(s):	Single-engine Land	Seat Occupied:	Center
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	05/31/2000
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	640 hours (Total, all aircraft), 20 hours (Total, this make and model), 10 hours (Last 90 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N2329Y
Model/Series:	PA-36-200 PA-36-200	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Restricted	Serial Number:	36-8160002
Landing Gear Type:	Tailwheel	Seats:	
Date/Type of Last Inspection:	05/01/2000, 100 Hour	Certified Max Gross Wt.:	
Time Since Last Inspection:	10 Hours	Engines:	1 Reciprocating
Airframe Total Time:	4215 Hours	Engine Manufacturer:	Lycoming
ELT:		Engine Model/Series:	IO-540-K1G5
Registered Owner:	COOPERATIVE AGRICULTURAL SERVI	Rated Power:	300 hp
Operator:	COOPERATIVE AGRICULTURAL SERVI	Operating Certificate(s) Held:	
Operator Does Business As:	CO-AG	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	HLC, 2690 ft msl	Distance from Accident Site:	29 Nautical Miles
Observation Time:	0653 CST	Direction from Accident Site:	60°
Lowest Cloud Condition:	Clear / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	None / 0 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	21° C / 13° C
Precipitation and Obscuration:			
Departure Point:	(OEL)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	0700 CDT	Type of Airspace:	Class G

Airport Information

Airport:	OAKLEY MUNICIPAL AIRPORT (OEL)	Runway Surface Type:	Asphalt
Airport Elevation:	3045 ft	Runway Surface Condition:	
Runway Used:	34	IFR Approach:	
Runway Length/Width:	5000 ft / 75 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	MITCHELL F GALLO	Report Date:	05/08/2001
Additional Participating Persons:	JEFF SPANGLER; WICHITA, KS		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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