Aviation Investigation Final Report

Location:	MIDLAND, Texas	**Accident Number:**	FTW98LA265
Date & Time:	June 13, 1998, 14:50 Local	**Registration:**	N42559
Aircraft:	Piper J3	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The commercial pilot lost control of the tailwheel equipped airplane when the wind shifted to a gusty tailwind during the landing roll. Witness observed the airplane execute a 'nice wheel landing on the centerline' of runway 16. After all 3 wheels were on the ground, the airplane started drifting to the left of the centerline. The left main wheel went off the pavement and as the right wing started to come up, the pilot advanced the engine to full power. The witness stated that he looked back at the windsock, he noticed that the winds had suddenly shifted from a quartering headwind, to a gusting quartering tailwind. The airplane cleared the airport's perimeter fence; however, the left wing of the airplane impacted a power line pole. The winds at the Midland International Airport, located 9 nautical miles to the northwest were reported from 230 degrees at 11 knots. In the enclosed NTSB Form 6120.1/2, the pilot reported that the winds were from the southwest at 15 knots, gusting to 20 knots.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The inadvertent ground loop during the landing roll. A factor was the sudden windshift.

Findings

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

Findings

1. WEATHER CONDITION - CROSSWIND
2. (F) WEATHER CONDITION - SUDDEN WINDSHIFT
3. WEATHER CONDITION - TAILWIND
4. (C) GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

Factual Information

On June 13, 1998, at 1450 central daylight time, a Piper J3 tailwheel equipped airplane, N42559, was substantially damaged following a loss of control while landing near Midland, Texas. The instrument rated commercial pilot, sole occupant of the airplane, sustained minor injuries. The airplane was registered to and operated by the pilot. Visual meteorological conditions prevailed for the Title 14 CFR Part 91 local flight for which a flight plan was not filed. The personal flight originated from the Midland International Airport (MAF), near Midland, Texas, at 1435.

A flight instructor/FAA designated pilot examiner, who was taxiing for departure from runway 16, observed the accident sequence from the cockpit of his airplane. The witness observed the airplane execute a "nice wheel landing on the centerline" of runway 16. The witness stated that after all 3 wheels were on the ground, the airplane started drifting to the left of the centerline. He reported that the left main wheel went off the pavement once and the pilot managed to recover the airplane back toward the center of the runway.

The witness then observed a re-occurrence of the first incident, with the exception that this time the left gear tire drifted further from the edge of the runway. He then observed the right wing starting to rise, as he heard the sound of the engine revving to full power. The witness stated that he looked back at the windsock to look for an explanation of what he was witnessing. He noticed that "the winds had suddenly shifted from a quartering headwind, to a gusting quartering tailwind."

The witness added that the pilot managed to get the airplane off the ground and maintained flight just above the stall. The airplane cleared the airport's perimeter fence and a road; however, the left wing of the airplane impacted a power line pole on the west side of the highway, separating the left wing from the airframe. The 1945 vintage airplane came to rest in the upright position on a northerly heading, approximately 488 feet from the edge of the runway.

The witness further stated that hangars and buildings located along the west side of the runway, have resulted in minor mishaps due to the disturbance created when the winds are from the west. The winds at the Midland International Airport, located 9 nautical miles to the northwest (310 degrees) were reported from 230 degrees at 11 knots. In the enclosed NTSB Form 6120.1/2, the pilot reported that he estimated the winds to be from the southwest at 15 knots, gusting to 20 knots.

The airport manager stated that crosswind runway 24, a freshly resurfaced 2,800 foot dirt runway, was available to the pilot. The witness concurred that the runway is very smooth; however, he added that runway 24 is presently extremely dusty due to the present drought

conditions.

Pilot Information

Certificate:	Commercial	**Age:**	32,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Rear
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--no waivers/lim.	**Last FAA Medical Exam:**	April 29, 1998
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	7211 hours (Total, all aircraft), 104 hours (Total, this make and model), 599 hours (Pilot In Command, all aircraft), 36 hours (Last 90 days, all aircraft), 21 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	**Registration:**	N42559
Model/Series:	J3 J3	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	14840
Landing Gear Type:	Tailwheel	**Seats:**	2
Date/Type of Last Inspection:	May 22, 1998 Annual	**Certified Max Gross Wt.:**	1170 lbs
Time Since Last Inspection:	1 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	3422 Hrs	**Engine Manufacturer:**	Continental
ELT:	Not installed	**Engine Model/Series:**	C85-12F
Registered Owner:	WILLIAM H. HOGG	**Rated Power:**	85 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:	MAF ,2800 ft msl	**Distance from Accident Site:**	9 Nautical Miles
Observation Time:	14:56 Local	**Direction from Accident Site:**	310°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	11 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	230°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	39°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	MIDLAND , TX (MAF)	**Type of Flight Plan Filed:**	None
Destination:		**Type of Clearance:**	None
Departure Time:	14:35 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	SKYWEST AIRPORT 7TX6	**Runway Surface Type:**	Asphalt
Airport Elevation:	2800 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	16	**IFR Approach:**	None
Runway Length/Width:	5000 ft / 45 ft	**VFR Approach/Landing:**	Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Minor	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Minor	**Latitude, Longitude:**	31.849693,-102.009712(est)

Administrative Information

Investigator In Charge (IIC):	Casanova, Hector
Additional Participating Persons:	CHARLES L CLARK; LUBBOCK , TX
Original Publish Date:	February 16, 2001
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=20647