



Aviation Investigation Final Report

Location:	McKinney, Texas	Accident Number:	GAA16CA024
Date & Time:	October 17, 2015, 10:30 Local	Registration:	N2099V
Aircraft:	Cessna 120	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot reported that after the touchdown, right rudder and brake was applied to counter a ground loop. He reported that the ground loop was prevented but the airplane nosed over as a result of the brake input. A postflight inspection revealed substantial damage to the fuselage, the right wing support strut, and the empennage.

The pilot reported there were no pre-impact mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's use of excessive brake input during the recovery from the ground loop, which resulted in a nose over.

Findings

Personnel issues	Aircraft control - Pilot
Aircraft	Braking capability - Incorrect use/operation

Factual Information

History of Flight

Landing-landing roll	Attempted remediation/recovery
Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Nose over/nose down

Pilot Information

Certificate:	Private	Age:	34, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Glider	Restraint Used:	Lap only
Instrument Rating(s):	None	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	December 11, 2012
Occupational Pilot:	No	Last Flight Review or Equivalent:	July 28, 2015
Flight Time:	(Estimated) 110 hours (Total, all aircraft), 22 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N2099V
Model/Series:	120 NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:	1946	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	14324
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	May 1, 2015 Annual	Certified Max Gross Wt.:	1350 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	C-85-12
Registered Owner:	On file	Rated Power:	85 Horsepower
Operator:	On file	Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KTKI,586 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	15:53 Local	Direction from Accident Site:	352°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	9 knots /	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	90°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.38 inches Hg	Temperature/Dew Point:	19°C / 2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	McKinney, TX (TKI)	Type of Flight Plan Filed:	None
Destination:	McKinney, TX (TKI)	Type of Clearance:	VFR
Departure Time:	09:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	COLLIN COUNTY RGNL AT MC KINNE TKI	Runway Surface Type:	Concrete
Airport Elevation:	588 ft msl	Runway Surface Condition:	Dry
Runway Used:	18	IFR Approach:	None
Runway Length/Width:	7002 ft / 150 ft	VFR Approach/Landing:	Full stop;Traffic pattern

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:	33.176944,-96.58889(est)

Administrative Information

Investigator In Charge (IIC):	Hodges, Michael
Additional Participating Persons:	Earl A Baumgard; FAA North Texas FSDO; Irving, TX
Original Publish Date:	December 17, 2015
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=92212

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