



National Transportation Safety Board Aviation Accident Final Report

Location:	Willimantic, CT	Accident Number:	IAD05LA009
Date & Time:	11/02/2004, 1130 EST	Registration:	N1811N
Aircraft:	Cessna 120	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

The commercial pilot was rated in helicopters only, and was receiving instruction in airplanes. He had accrued 8 hours of total airplane time, all of which was in the tail-wheeled accident airplane. During this instructional flight, the pilot demonstrated difficulty with proper brake control, and the instructor elected to practice braking and turning. While they taxied forward at 15 mph, the instructor asked the pilot to turn the airplane around. The pilot initiated an immediate right turn to reverse direction that oriented the tail into the wind. The tail rose up in the turn and the airplane continued around and over onto its nose. The pilot said that he intended to slow the airplane before the turn, but that his braking was "uneven", and resulted in a "hard" right turn and the nose over. Both pilots reported that there were no mechanical difficulties with the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot's loss of directional control due to his uneven application of brakes. A factor in the accident was the tailwind.

Findings

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

Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) BRAKES(NORMAL) - INADEQUATE - PILOT IN COMMAND

Occurrence #2: NOSE OVER
Phase of Operation: TAXI

Findings

3. (F) WEATHER CONDITION - TAILWIND
4. GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

Factual Information

On November 2, 2004, at 1130 eastern standard time, a Cessna 120, N1811N, was substantially damaged during a ground loop and nose over at the Windham Airport (IJD), Willimantic, Connecticut. The certificated flight instructor and the certificated commercial pilot, who was rated only in helicopters, were not injured. Visual meteorological conditions prevailed for the local instructional flight that originated at Windham Airport, at 1055. No flight plan was filed for the flight conducted under 14 CFR Part 91.

The instructor provided both a written statement and a telephone interview. He explained that his student was a commercial helicopter pilot with only 8 hours of experience in airplanes; all of which was in the accident airplane. The instructor had the pilot practice braking and turning on runway 27. After the pilot taxied for some distance, the instructor asked him to "head back." At the time, the airplane was traveling about 15 miles per hour. The pilot initiated an immediate right turn to reverse direction that oriented the tail into the wind. The tail rose up in the turn and the airplane continued around and over onto its nose.

The instructor said he expected the pilot to slow the airplane prior to the turn. Instead, the application of brakes was "aggressive" and "uneven", and the airplane ground-looped to the right and continued directly into the nose over.

During a telephone interview, the pilot concurred with the instructor's version of events. He said that he intended to slow the airplane before the turn, but that his braking was "uneven", and resulted in a "hard" right turn and the nose over. Both pilots reported there were no mechanical deficiencies with the airplane.

The instructor reported 1,379 hours of flight experience, 75 hours of which were in the Cessna 120. The pilot held a commercial pilot certificate, with ratings for rotorcraft helicopter and instrument helicopter. He reported 6,500 hours of experience in helicopters, and 8 hours in airplanes; all of which was in the accident airplane.

The weather reported at Windham Airport, at 1052, included an overcast ceiling at 5,500 feet and wind from 180 degrees at 3 knots. The instructor reported that, at the time of the accident, the wind was from the southwest about 8 knots.

Flight Instructor Information

Certificate:	Flight Instructor; Commercial	Age:	29, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	10/22/2004
Occupational Pilot:		Last Flight Review or Equivalent:	12/16/2003
Flight Time:	1379 hours (Total, all aircraft), 75 hours (Total, this make and model), 1278 hours (Pilot In Command, all aircraft), 88 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Commercial	Age:	, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Seatbelt
Instrument Rating(s):	Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	Helicopter	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	02/27/2004
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	1379 hours (Total, all aircraft), 75 hours (Total, this make and model), 88 hours (Last 90 days, all aircraft), 13 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N1811N
Model/Series:	120	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	12055
Landing Gear Type:	Tricycle	Seats:	2
Date/Type of Last Inspection:	08/03/2004, Annual	Certified Max Gross Wt.:	1450 lbs
Time Since Last Inspection:	27 Hours	Engines:	1 Reciprocating
Airframe Total Time:	6006 Hours at time of accident	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	C85
Registered Owner:	Adam Van Voorhis	Rated Power:	100 hp
Operator:	Adam Van Voorhis	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	HFD, 240 ft msl	Distance from Accident Site:	
Observation Time:	1052 EST	Direction from Accident Site:	
Lowest Cloud Condition:	Few / 2300 ft agl	Visibility	10 Miles
Lowest Ceiling:	Overcast / 5500 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	180°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.21 inches Hg	Temperature/Dew Point:	7°C / 3°C
Precipitation and Obscuration:			
Departure Point:	WILLIMANTIC, CT (IJD)	Type of Flight Plan Filed:	None
Destination:	WILLIMANTIC, CT (IJD)	Type of Clearance:	None
Departure Time:	1055 EST	Type of Airspace:	Class G

Airport Information

Airport:	Windham (IJD)	Runway Surface Type:	Asphalt
Airport Elevation:	240 ft	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	4278 ft / 100 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	41.743889, -72.180000

Administrative Information

Investigator In Charge (IIC):	Brian C Rayner	Report Date:	04/28/2005
Additional Participating Persons:	Ed O'Dell; FAA; Windsor Locks, CT		
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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