



National Transportation Safety Board Aviation Incident Final Report

Location:	Denver, CO	Incident Number:	DEN051A046
Date & Time:	01/03/2005, 1934 MST	Registration:	N202UX
Aircraft:	Beech 1900D	Aircraft Damage:	Minor
Defining Event:		Injuries:	1 Minor, 15 None
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

Analysis

According to witnesses, the tug was parked behind the left wing of the airplane, facing in the opposite direction, with its engine running. The airplane's engines were not running. When the tug operator "jumped" onto the tug, he lost his footing and slipped. As he grabbed for something to catch his balance, his right arm hit the tug's gearshift lever. As the tug started moving forward in a right turn, the tug operator's left foot became caught between the tug's frame and left rear tire. The tug circled around the left wing tip of the airplane and it struck the left engine nacelle. The tug operator's foot became wedged between the tug and the airplane's stairs, resulting in a sprained left ankle and a few minor lacerations. The airplane sustained minor damage to the left engine nacelle and one propeller blade. According to the FAA, the tug operator's training records did not reflect the tug operator's qualifications to operate ground equipment, including the gas powered Kubota tug involved in this incident.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this incident to be: the tug driver's failure to maintain operational control of the tug, resulting in impact with an airplane. Contributing factors include the tug driver's improper procedure, the tug driver's inadequate initial ground equipment training, and the company/operator's inadequate certification/approval of the tug driver.

Findings

Occurrence #1: MISCELLANEOUS/OTHER

Phase of Operation: STANDING - ENGINE(S) NOT OPERATING

Findings

1. (C) MISCELLANEOUS - DRIVER OF VEHICLE
2. (F) IMPROPER USE OF PROCEDURE - DRIVER OF VEHICLE
3. (F) INADEQUATE INITIAL TRAINING - DRIVER OF VEHICLE
4. (F) INADEQUATE CERTIFICATION/APPROVAL - COMPANY/OPERATOR MGMT
5. (F) OBJECT - VEHICLE

Factual Information

On January 3, 2005, at 1934 mountain standard time, a Beech 1900D, N202UX, operated by Great Lakes Aviation, Ltd, as Lakes Air Flight 5039, sustained minor damage when it was struck by a tug while parked at gate A52, Denver International Airport (DEN), Denver, Colorado. Night visual meteorological conditions (VMC) prevailed at the time of the incident. The airline transport certificated captain, and first officer and 13 passengers on board were not injured. The tug operator received minor injuries. The scheduled domestic passenger flight was being conducted under the provisions of Title 14 CFR Part 121 on an instrument flight rules (IFR) flight plan. The flight to McCook, Nebraska, was preparing for departure.

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Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	26, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	07/22/2004
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	3000 hours (Total, all aircraft), 2150 hours (Total, this make and model), 1450 hours (Pilot In Command, all aircraft), 259 hours (Last 90 days, all aircraft), 89 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Beech	Registration:	N202UX
Model/Series:	1900D	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	
Landing Gear Type:	Retractable - Tricycle	Seats:	21
Date/Type of Last Inspection:		Certified Max Gross Wt.:	17120 lbs
Time Since Last Inspection:		Engines:	2 Turbo Prop
Airframe Total Time:		Engine Manufacturer:	Pratt & Whitney Canada
ELT:	Installed, not activated	Engine Model/Series:	PT6a-67D
Registered Owner:	Great Lakes Aviation LTD.	Rated Power:	1279 hp
Operator:	Great Lakes Aviation LTD.	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	GLBA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	KDEN, 5431 ft msl	Distance from Accident Site:	
Observation Time:	1953 MST	Direction from Accident Site:	
Lowest Cloud Condition:	Scattered / 130 ft agl	Visibility	4 Miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	4 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	20°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.08 inches Hg	Temperature/Dew Point:	-4° C / -5° C
Precipitation and Obscuration:			
Departure Point:	Denver, CO (DEN)	Type of Flight Plan Filed:	IFR
Destination:	Denver, CO (MCK)	Type of Clearance:	IFR
Departure Time:	1935 MST	Type of Airspace:	Class B

Airport Information

Airport:	Denver Internationl (DEN)	Runway Surface Type:	Unknown
Airport Elevation:	5431 ft	Runway Surface Condition:	Unknown
Runway Used:	NA	IFR Approach:	Unknown
Runway Length/Width:		VFR Approach/Landing:	Unknown

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Minor
Passenger Injuries:	13 None	Aircraft Fire:	None
Ground Injuries:	1 Minor	Aircraft Explosion:	None
Total Injuries:	1 Minor, 15 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Arnold W Scott	Report Date:	06/08/2005
Additional Participating Persons:	Skip Wayman; Federal Aviation Administration; Denver, CO		
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/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).