



National Transportation Safety Board Aviation Accident Final Report

Location:	Fort Dodge, IA	Accident Number:	GAA16CA308
Date & Time:	06/05/2016, 0630 CDT	Registration:	N750Z
Aircraft:	CESSNA 208	Aircraft Damage:	Substantial
Defining Event:	Ground handling event	Injuries:	9 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Scheduled		

Analysis

The pilot in command reported that during the loading of the seventh and final passenger, the airplane tipped onto its tail and impacted the ramp surface. He further reported that the tail stand was not installed and neither he nor the co-pilot noticed the omission before passenger loading began.

According to the National Transportation Safety Board Accident/ Incident report form 6120.1 submitted by the operator; after a review of pictures sent to company maintenance, no "major damage" was visually identified, the airplane was released for service, and the flight crew completed the revenue flight. After the airplane reached a company domicile, the airplane was "grounded" after a further visual inspection revealed substantial damage to the aft bulkhead.

The pilot did not report any mechanical malfunctions or failures with the airplane 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 flight crew's failure to install the tail stand prior to passenger boarding, which resulted in a tail strike.

Findings

Aircraft	Loading - Inadequate inspection (Cause) Empennage structure - Not inspected
Personnel issues	Forgotten action/omission - Flight crew (Cause)

Factual Information

History of Flight

Prior to flight Ground handling event (Defining event)

Pilot Information

Certificate:	Airline Transport; Flight Engineer	Age:	50, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
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 Without Waivers/Limitations	Last Medical Exam:	02/10/2016
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	05/18/2016
Flight Time:	(Estimated) 6078 hours (Total, all aircraft), 766 hours (Total, this make and model), 4578 hours (Pilot In Command, all aircraft), 290 hours (Last 90 days, all aircraft), 91 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Co-Pilot Information

Certificate:	Commercial	Age:	22, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last Medical Exam:	11/10/2015
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	05/21/2016
Flight Time:	(Estimated) 809 hours (Total, all aircraft), 118 hours (Total, this make and model), 601 hours (Pilot In Command, all aircraft), 118 hours (Last 90 days, all aircraft), 97 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	CESSNA	Registration:	N750Z
Model/Series:	208 B	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	208B1054
Landing Gear Type:	Tricycle	Seats:	10
Date/Type of Last Inspection:	06/01/2016, AAIP	Certified Max Gross Wt.:	9062 lbs
Time Since Last Inspection:		Engines:	1 Turbo Prop
Airframe Total Time:	6950.9 Hours	Engine Manufacturer:	PRATT & WHITNEY CANADA
ELT:	C91 installed, not activated	Engine Model/Series:	PT6A-114A
Registered Owner:	MULTI AERO INC.	Rated Power:	675 hp
Operator:	MULTI AERO INC.	Air Carrier Operating Certificate:	Commuter Air Carrier (135)
Operator Does Business As:	Air Choice One	Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KFOD, 1156 ft msl	Observation Time:	1135 UTC
Distance from Accident Site:	0 Nautical Miles	Direction from Accident Site:	0°
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	13° C / 11° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	Calm	Visibility (RVR):	
Altimeter Setting:	29.88 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Dodge, IA (FOD)	Type of Flight Plan Filed:	IFR
Destination:	ST LOUIS, MO (STL)	Type of Clearance:	None
Departure Time:	0630 CDT	Type of Airspace:	Class E

Airport Information

Airport:	FORT DODGE RGNL (FOD)	Runway Surface Type:	N/A
Airport Elevation:	1156 ft	Runway Surface Condition:	Dry
Runway Used:	N/A	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	7 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	9 None	Latitude, Longitude:	42.552500, -94.183333 (est)

Administrative Information

Investigator In Charge (IIC):	Adam M Gerhardt	Adopted Date:	08/31/2016
Additional Participating Persons:	Susan Corrigan; FAA; St. Louis, MO		
Publish Date:	08/31/2016		
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=93374		

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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.