



National Transportation Safety Board Aviation Accident Final Report

Location:	FREELAND, MI	Accident Number:	CHI92FA104
Date & Time:	03/05/1992, 1504 EST	Registration:	N69662
Aircraft:	CESSNA 414	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

WHILE LOADING A PATIENT & HIS PERSONAL GEAR IN THE AIRCRAFT FOR AN AIR AMBULANCE FLIGHT, THE AIRCRAFT TIPPED ONTO ITS TAIL. AS A RESULT, THE TAIL BUMPER WAS FORCED UPWARD INTO THE BELLY OF THE EMPENNAGE. THE PILOT REFUSED THE OFFER TO HAVE A MECHANIC LOOK AT THE DAMAGE, AND REMARKED 'THIS HAS HAPPENED BEFORE.' AFTER TAKEOFF, THE PILOT RADIOED TO THE TOWER THAT HE HAD A JAMMED ELEVATOR, AND WAS COMING AROUND TO LAND. WHILE MANUEVERING ON A BASE LEG, CONTROL WAS LOST & THE AIRPLANE WAS OBSERVED TO CRASH WITH ONE WING PERPENDICULAR TO THE GROUND. ANOTHER AIRPLANE WAS IN THE TAKEOFF POSITION ON THE RUNWAY. THE AIRPLANE WAS CONFIGURED WITH A HOSPITAL LITTER/STRETCHER AND OXYGEN BOTTLE ON THE RIGHT SIDE OF THE CABIN. THERE WAS NO RECORD FOR THE APPROVAL FOR, OR INSTALLATION OF, THE STRETCHER. IN ADDITION, THERE WAS NO WEIGHT & BALANCE RECORD FOR THE AIRPLANE WITH THE STRETCHER INSTALLATION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT'S POOR JUDGEMENT IN ATTEMPTING FLIGHT AFTER THE AIRPLANE'S FUSELAGE WAS DAMAGED DURING A LOADING OPERATION. FACTORS WHICH CONTRIBUTED TO THE ACCIDENT WERE: THE OPERATOR'S FAILURE TO PROVIDE PROPER WEIGHT AND BALANCE DATA FOR THE AIRPLANE, THE PILOT'S FAILURE TO SUPERVISE THE LOADING OPERATION, AND HIS FAILURE TO ACCEPT THE SERVICES OF A MECHANIC TO INSPECT THE DAMAGE.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION

Phase of Operation: STANDING

Findings

1. (F) FUSELAGE - PENETRATED
 2. (F) AIRCRAFT WEIGHT AND BALANCE - UNAVAILABLE - COMPANY/OPERATOR MANAGEMENT
 3. (F) SUPERVISION - INADEQUATE - PILOT IN COMMAND
 4. (F) REMEDIAL ACTION - NOT PERFORMED - PILOT IN COMMAND
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Occurrence #2: LOSS OF CONTROL - IN FLIGHT

Phase of Operation: APPROACH - VFR PATTERN - BASE LEG/BASE TO FINAL

Findings

5. (C) FLT CONTROL SYST,ELEVATOR CONTROL CABLE/ROD - JAMMED
 6. (C) OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - ATTEMPTED - PILOT IN COMMAND
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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: APPROACH - VFR PATTERN - BASE LEG/BASE TO FINAL

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	28, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	01/29/1992
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2057 hours (Total, all aircraft), 184 hours (Total, this make and model), 1961 hours (Pilot In Command, all aircraft), 169 hours (Last 90 days, all aircraft), 94 hours (Last 30 days, all aircraft), 10 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N69662
Model/Series:	414 414	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	414-0621
Landing Gear Type:	Retractable - Tricycle	Seats:	7
Date/Type of Last Inspection:	02/28/1992, 100 Hour	Certified Max Gross Wt.:	6350 lbs
Time Since Last Inspection:	15 Hours	Engines:	2 Reciprocating
Airframe Total Time:	4106 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed	Engine Model/Series:	TSIO-520-NB2
Registered Owner:	TIFFANY AIR, INC.	Rated Power:	310 hp
Operator:	AIRBORNE FLYING SERVICE, INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	PQGA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MBS, 668 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1450 EST	Direction from Accident Site:	180°
Lowest Cloud Condition:	Unknown / 9500 ft agl	Visibility	1 Miles
Lowest Ceiling:	Broken / 9500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	40°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	4° C / 3° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	CHICAGO, IL (MDW)	Type of Clearance:	IFR
Departure Time:	1501 EST	Type of Airspace:	Class D; Class E

Airport Information

Airport:	TRI-CITY INTL AIRPORT (MBS)	Runway Surface Type:	Asphalt
Airport Elevation:	668 ft	Runway Surface Condition:	Dry
Runway Used:	5	IFR Approach:	None
Runway Length/Width:	8002 ft / 150 ft	VFR Approach/Landing:	Full Stop; Traffic Pattern

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	Mark E Doub	Report Date:	09/29/1993
Additional Participating Persons:	WILLIAM NAYMICK; GRAND RAPIDS, MI		
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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