



Aviation Investigation Final Report

Location:	JOLIET, Illinois	Accident Number:	CHI92LA118
Date & Time:	March 28, 1992, 14:02 Local	Registration:	N4822R
Aircraft:	CESSNA TR182	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	1 Minor, 3 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

WHILE IN CRUISE FLIGHT AT 3,000 FEET, ELECTRICAL ARCING STARTED UNDER THE INSTRUMENT PANEL. THE PILOT DECLARED AN EMERGENCY AND DIVERTED TO AN ALTERNATE DESTINATION. THE ARCING CONTINUED AND AN IN-FLIGHT FIRE ENSUED. THE PILOT CONTINUED AN EMERGENCY DESCENT AND ON TOUCHDOWN THE MAIN LANDING GEAR COLLAPSED. SUBSEQUENT EXAMINATION FAILED TO REVEAL THE NATURE OF THE ELECTRICAL ARCING. THE FIRE WAS SUPPORTED BY IGNITION OF CARPETING AND UPHOLSTERY.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT-IN-COMMAND'S FAILURE TO FOLLOW EMERGENCY PROCEDURES, AND THE FAILURE OF THE ELECTRICAL SYSTEM. FACTORS CONTRIBUTING TO THE ACCIDENT WERE ELECTRICAL ARCING, AND THE LACK OF TOTAL EXPERIENCE IN THE TYPE OF AIRCRAFT BY THE PILOT-IN-COMMAND.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: CLIMB

Findings

1. (C) ELECTRICAL SYSTEM,ELECTRIC WIRING - ARCING

Occurrence #2: FIRE

Phase of Operation: DESCENT - EMERGENCY

Findings

2. MISC EQPT/FURNISHINGS - FIRE

3. (C) EMERGENCY PROCEDURE - NOT FOLLOWED - PILOT IN COMMAND

4. LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

Occurrence #3: MAIN GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

5. ELECTRICAL SYSTEM,BATTERY - INADEQUATE

6. GEAR DOWN AND LOCKED - NOT ATTAINED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Commercial	Age:	43, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	August 20, 1991
Occupational Pilot:	No	Last Flight Review or Equivalent:	
Flight Time:	1095 hours (Total, all aircraft), 2 hours (Total, this make and model), 890 hours (Pilot In Command, all aircraft), 11 hours (Last 90 days, all aircraft), 7 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N4822R
Model/Series:	TR182 TR182	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	R18200612
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	February 17, 1992 Annual	Certified Max Gross Wt.:	3100 lbs
Time Since Last Inspection:	8 Hrs	Engines:	1 Reciprocating
Airframe Total Time:	1666 Hrs	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	O-540-L3C5D
Registered Owner:	TRAVEL EXPRESS AVIATION, LTD	Rated Power:	235 Horsepower
Operator:	TRAVEL EXPRESS AVIATION, LTD	Operating Certificate(s) Held:	None
Operator Does Business As:		Operator Designator Code:	

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	ARR ,707 ft msl	Distance from Accident Site:	21 Nautical Miles
Observation Time:	13:45 Local	Direction from Accident Site:	330°
Lowest Cloud Condition:	Scattered / 10000 ft AGL	Visibility	12 miles
Lowest Ceiling:	Overcast / 25000 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	11 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	WEST CHICAGO , IL (DPA)	Type of Flight Plan Filed:	IFR
Destination:	MARIETTA , GA (RYY)	Type of Clearance:	IFR
Departure Time:	13:45 Local	Type of Airspace:	Class E

Airport Information

Airport:	JOLIET PARK DISTRICT JOT	Runway Surface Type:	Asphalt
Airport Elevation:	581 ft msl	Runway Surface Condition:	Dry
Runway Used:	12	IFR Approach:	None
Runway Length/Width:	2940 ft / 100 ft	VFR Approach/Landing:	Forced landing;Full stop;Straight-in

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Destroyed
Passenger Injuries:	3 None	Aircraft Fire:	In-flight
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 3 None	Latitude, Longitude:	41.519702,-88.12033(est)

Administrative Information

Investigator In Charge (IIC):	Wilson, Stephen
Additional Participating Persons:	D. BRIGHAM; WEST CHICAGO , IL
Original Publish Date:	August 13, 1993
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=15418

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