



National Transportation Safety Board Aviation Accident Final Report

Location:	ST. LOUIS, MO	Accident Number:	MKC84MA060
Date & Time:	01/09/1984, 2232 CST	Registration:	CGSCA
Aircraft:	DOUGLAS DC-3C	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Fatal, 1 Serious

Flight Conducted Under: Part 91: General Aviation - Positioning

Analysis

AFTER LANDING, THE PLT-IN-COMMAND (PIC) PLACED A REFUELING ORDER TO FILL THE ACFT'S TWO 210 GAL MAIN TANKS FOR A RETURN FLT TO TORONTO, ONTARIO, CANADA. AFTER THE CARGO WAS UNLOADED & THE ACFT WAS REFUELED, THE AIRCREW ABORTED THE 1ST 2 ATTEMPTS TO TAKEOFF DUE TO SLOW ACFT PERFORMANCE. ENG RUN-UPS WERE PERFORMED AFTER EACH ABORT & REPORTEDLY, THE ENGS CHECKED NORMAL. AFTER THE 2ND ABORTED TAKEOFF, THE AIRCREW CALLED THE FBO & REQUESTED THAT THE REFUELER BE ASKED WHAT TYPE OF FUEL WAS ADDED. THE RESPONSE WAS '100LL AVGAS.' ON THE 3RD ATTEMPT TO DEPART, THE ACFT TOOK OFF, BUT BOTH ENGS LOST POWER AS THE LANDING GEAR WAS RETRACTED. THE AIRCREW SELECTED A HIGHWAY ON WHICH TO LAND. HOWEVER, THE LEFT WING HIT A UTILITY POLE, THEN THE ACFT WENT THRU A FENCE & HIT A HIGHWAY EMBANKMENT. INVESTIGATION REVEALED THAT JET-A FUEL HAD BEEN ADDED TO THE ACFT RATHER THAN 100LL FUEL. THE TRUCK CONTAINING JET-A FUEL LOOKED SIMILAR TO THE ONE WITH 100LL AVGAS, BUT WAS PROPERLY DESIGNATED WITH FUEL GRADE MARKINGS.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (C) FLUID,FUEL - IMPROPER
 2. (C) MAINTENANCE,SERVICE OF AIRCRAFT/EQUIPMENT - IMPROPER - FBO PERSONNEL
 3. AIRCRAFT PERFORMANCE,TWO OR MORE ENGINES - INOPERATIVE
-

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: DESCENT - EMERGENCY

Findings

4. (F) OBJECT - UTILITY POLE
-

Occurrence #4: ON GROUND/WATER COLLISION WITH OBJECT
Phase of Operation: LANDING

Findings

5. (F) OBJECT - FENCE
-

Occurrence #5: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: LANDING

Findings

6. (F) TERRAIN CONDITION - DIRT BANK/RISING EMBANKMENT

Factual Information

Pilot Information

Certificate:	Airline Transport; Foreign	Age:	32, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):		Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	08/30/1983
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	4000 hours (Total, all aircraft), 1350 hours (Total, this make and model), 2400 hours (Pilot In Command, all aircraft), 200 hours (Last 90 days, all aircraft), 65 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	DOUGLAS	Registration:	CGSCA
Model/Series:	DC-3C DC-3C	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	27190
Landing Gear Type:	Retractable - Tailwheel	Seats:	24
Date/Type of Last Inspection:	01/04/1984, 100 Hour	Certified Max Gross Wt.:	25200 lbs
Time Since Last Inspection:	25 Hours	Engines:	2 Reciprocating
Airframe Total Time:	17933 Hours	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	R-1830
Registered Owner:	SKYCRAFT AIR TRANSPORT	Rated Power:	1025 hp
Operator:	SKYCRAFT AIR TRANSPORT	Operating Certificate(s) Held:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	STL, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	2244 CDT	Direction from Accident Site:	80°
Lowest Cloud Condition:	Unknown / 1400 ft agl	Visibility	7 Miles
Lowest Ceiling:	Broken / 1400 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	12 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	340°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	-2° C / -2° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	IFR
Destination:	TORONTO, CD (YYZ)	Type of Clearance:	IFR
Departure Time:	2231 CDT	Type of Airspace:	Airport Advisory Area

Airport Information

Airport:	LAMBERT-ST.LOUIS (STL)	Runway Surface Type:	Concrete
Airport Elevation:	605 ft	Runway Surface Condition:	
Runway Used:	24	IFR Approach:	None
Runway Length/Width:	7600 ft / 150 ft	VFR Approach/Landing:	Forced Landing

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	JAMES A WALL	Report Date:	
Additional Participating Persons:	LUTHER C SALMONS; BERKELEY, MO		
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](#).