



National Transportation Safety Board Aviation Accident Final Report

Location:	WATERMAN, IL	Accident Number:	CHI89MA095
Date & Time:	05/22/1989, 1045 CDT	Registration:	N47CE
Aircraft:	DOUGLAS DC3C-S13CG	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal

Flight Conducted Under: Part 91: General Aviation - Instructional

Analysis

PURPOSE OF THE FLT WAS TO PROVIDE TRAINING TO THE COPILOT FOR A NEW (PART 135) OPN. WITNESSES OBSERVED THE DC-3, N47CE, MANEUVERING AT 3000 FT MSL (APRX 2200 FT AGL) WITH THE GEAR & FLAPS EXTENDED. SHORTLY AFTER COMPLETING A TURN, THE ACFT WAS OBSERVED IN A NOSE HIGH ATTITUDE, THEN IT ENTERED A SPIN. ACCORDING TO WITNESSES, THE ACFT SEEMED TO STOP SPINNING, BUT IT ENTERED A SECONDARY SPIN & CRASHED BEFORE RECOVERY WAS ACCOMPLISHED. THE PILOT-IN-COMMAND (PIC) HAD 30 HRS OF FLTTIME IN THE MAKE/MODEL OF ACFT. NO RECORD WAS FOUND TO SHOW THAT THE PIC HAD BEEN TRAINED IN APPROACHES TO STALLS. NO PREIMPACT PART FAILURE/MALFUNCTION OF THE ACFT WAS FOUND, THOUGH IT WAS DESTROYED BY IMPACT & FIRE. THE COPILOT WAS A RETIRED AIRLINE PLT, WHO HAD FLOWN THE DC-3 IN THE 1940'S. AN EXAM OF THE WRECKAGE REVEALED THE GEAR & FLAPS WERE (FULLY) EXTENDED & THE ELEVATOR TRIM WAS SET IN A FULL NOSE UP (TRIM) POSITION.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE PILOT-IN-COMMAND (PIC) FAILED TO PROVIDE ADEQUATE SUPERVISION WHILE TRAINING THE COPILOT AND ALLOWED THE AIRCRAFT TO ENTER A STALL/SPIN, THEN DID NOT PROVIDE ADEQUATE REMEDIAL ACTION TO PROPERLY RECOVER FROM THE SPIN. FACTORS RELATED TO THE ACCIDENT WERE: USE OF EXCESSIVE ELEVATOR TRIM, THE PIC'S LACK OF TRAINING (IN APPROACHES TO STALLS) AND LACK OF EXPERIENCE IN THE MAKE/MODEL OF AIRCRAFT, AND THE COPILOT'S LACK OF RECENT EXPERIENCE IN THE MAKE/MODEL OF AIRCRAFT.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: MANEUVERING

Findings

1. MANEUVER - PERFORMED
2. AIRSPEED - REDUCED
3. (F) ELEVATOR TRIM - EXCESSIVE
4. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND
5. (C) STALL/SPIN - ENCOUNTERED - PILOT IN COMMAND
6. (C) REMEDIAL ACTION - NOT ATTAINED - PILOT IN COMMAND
7. (F) LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
8. (F) INADEQUATE TRANSITION/UPGRADE TRAINING - PILOT IN COMMAND
9. (F) LACK OF RECENT EXPERIENCE IN TYPE OF AIRCRAFT - COPILOT/SECOND PILOT

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Engineer	Age:	47, Female
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last Medical Exam:	11/07/1988
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	4000 hours (Total, all aircraft), 30 hours (Total, this make and model), 2531 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 5 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	DOUGLAS	Registration:	N47CE
Model/Series:	DC3C-S13CG DC3C-S13CG	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	13456
Landing Gear Type:	Retractable - Tailwheel	Seats:	26
Date/Type of Last Inspection:	06/20/1988, Continuous Airworthiness	Certified Max Gross Wt.:	26900 lbs
Time Since Last Inspection:	62 Hours	Engines:	2 Reciprocating
Airframe Total Time:	17177 Hours	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	R-2000-7M2-D5
Registered Owner:	CONDOR ENTERPRISES, INC.	Rated Power:	1500 hp
Operator:	CONDOR ENTERPRISES, INC.	Air Carrier Operating Certificate:	On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	CNDA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RFD, 736 ft msl	Observation Time:	1128 CDT
Distance from Accident Site:	25 Nautical Miles	Direction from Accident Site:	315°
Lowest Cloud Condition:	Scattered / 10000 ft agl	Temperature/Dew Point:	24° C / 11° C
Lowest Ceiling:	Overcast / 25000 ft agl	Visibility	15 Miles
Wind Speed/Gusts, Direction:	7 knots, 80°	Visibility (RVR):	0 ft
Altimeter Setting:	30 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	SUGAR GROVE, IL (ARR)	Type of Flight Plan Filed:	None
Destination:	(ARR)	Type of Clearance:	None
Departure Time:	1030 CDT	Type of Airspace:	Class G

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:	On-Ground
Total Injuries:	3 Fatal	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	MARK E DOUB	Adopted Date:	07/12/1991
Additional Participating Persons:	DAY WATERMAN; WEST CHICAGO, IL ED FREEMAN; WEST CHICAGO, IL		
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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