



# National Transportation Safety Board Aviation Accident Final Report

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

**Flight Conducted Under:** Part 91: General Aviation - Instructional

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## 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

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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

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Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Engineer	<b>Age:</b>	47, Female
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt, Shoulder harness
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	11/07/1988
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	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

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

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	RFD, 736 ft msl	Distance from Accident Site:	25 Nautical Miles
Observation Time:	1128 CDT	Direction from Accident Site:	315°
Lowest Cloud Condition:	Scattered / 10000 ft agl	Visibility	15 Miles
Lowest Ceiling:	Overcast / 25000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	80°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	24° C / 11° C
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	Report 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 <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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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. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).