



# National Transportation Safety Board Aviation Accident Final Report

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<b>Location:</b>	GRAND ISLAND, NE	<b>Accident Number:</b>	MKC86FA101
<b>Date &amp; Time:</b>	05/09/1986, 0238 CDT	<b>Registration:</b>	N1198Z
<b>Aircraft:</b>	AERO COMMANDER 680FL	<b>Aircraft Damage:</b>	Destroyed
<b>Defining Event:</b>		<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 135: Air Taxi & Commuter - Non-scheduled		

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## Analysis

THE TWIN ENG ACFT CRASHED AND BURNED 4 MILES NORTH OF THE ARPT WHILE ON AN INSTRUMENT APCH. THE PLT HAD TRANSMITTED THAT HE HAD AN ENGINE PROBLEM. THE #5 CYLINDER WAS FOUND DETACHED FROM THE LEFT ENGINE BUT THE LEFT PROPELLER WAS NOT FEATHERED. AN ENGINE TEARDOWN REVEALED EVIDENCE TO INDICATE THE #5 CYLINDER ATTACHMENTS WERE NOT PROPERLY TORQUED. NO PREIMPACT FAILURE COULD BE FOUND WITH THE RIGHT ENGINE. THE RIGHT PROPELLER WAS FOUND IN FEATHERED POSITION.

## Probable Cause and Findings

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

## Findings

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Occurrence #1: LOSS OF ENGINE POWER

Phase of Operation: APPROACH

### Findings

1. (F) ENGINE ASSEMBLY,CYLINDER - FAILURE,TOTAL
  2. (F) MAINTENANCE - IMPROPER - OTHER MAINTENANCE PERSONNEL
  3. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
  4. (C) WRONG PROPELLER FEATHERED - SELECTED - PILOT IN COMMAND
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Occurrence #2: IN FLIGHT COLLISION WITH OBJECT

Phase of Operation: DESCENT - EMERGENCY

### Findings

5. (F) OBJECT - TREE(S)
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Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER

Phase of Operation: DESCENT - UNCONTROLLED

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Occurrence #4: FIRE

Phase of Operation: OTHER

## Factual Information

### Pilot Information

<b>Certificate:</b>	Airline Transport; Flight Instructor; Commercial	<b>Age:</b>	31, Male
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Seatbelt
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	<b>Toxicology Performed:</b>	Yes
<b>Medical Certification:</b>	Class 1 Valid Medical--w/ waivers/lim.	<b>Last FAA Medical Exam:</b>	12/29/1985
<b>Occupational Pilot:</b>	<b>Last Flight Review or Equivalent:</b>		
<b>Flight Time:</b>	5522 hours (Total, all aircraft), 520 hours (Total, this make and model)		

### Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	AERO COMMANDER	<b>Registration:</b>	N1198Z
<b>Model/Series:</b>	680FL 680FL	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	No
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	1608-116
<b>Landing Gear Type:</b>	Retractable - Tricycle	<b>Seats:</b>	2
<b>Date/Type of Last Inspection:</b>	04/02/1986, 100 Hour	<b>Certified Max Gross Wt.:</b>	8500 lbs
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Reciprocating
<b>Airframe Total Time:</b>	7340 Hours	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>		<b>Engine Model/Series:</b>	IGSO-540-B1A
<b>Registered Owner:</b>		<b>Rated Power:</b>	380 hp
<b>Operator:</b>	SUBURBAN AIR FREIGHT, INC.	<b>Operating Certificate(s) Held:</b>	On-demand Air Taxi (135)

## Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	GRI, 1846 ft msl	Distance from Accident Site:	4 Nautical Miles
Observation Time:	0200 CDT	Direction from Accident Site:	170°
Lowest Cloud Condition:	Unknown / 1000 ft agl	Visibility	7 Miles
Lowest Ceiling:	Overcast / 1000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	16 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	160°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	15° C / 13° C
Precipitation and Obscuration:			
Departure Point:	OMAHA, NE (OMA)	Type of Flight Plan Filed:	IFR
Destination:		Type of Clearance:	IFR
Departure Time:	0200 CDT	Type of Airspace:	Class D

## Airport Information

Airport:	CENTRAL NEBRASKA REGIONAL (GRI)	Runway Surface Type:	
Airport Elevation:		Runway Surface Condition:	
Runway Used:	0	IFR Approach:	Localizer Only
Runway Length/Width:		VFR Approach/Landing:	None

## Wreckage and Impact Information

Crew Injuries:	1 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	N/A	Aircraft Fire:	On-Ground
Ground Injuries:	N/A	Aircraft Explosion:	On-Ground
Total Injuries:	1 Fatal	Latitude, Longitude:	

## Administrative Information

Investigator In Charge (IIC):	EUGENE ROTH	Report Date:	
Additional Participating Persons:	JAMES H OWENS; LINCOLN, NE CLIFTON R PATTY; WICHITA, KS		
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:pubinquiry@ntsb.gov">pubinquiry@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](#).