



National Transportation Safety Board Aviation Accident Final Report

Location:	NORTON SHORES, MI	Accident Number:	CHI86FA172
Date & Time:	07/16/1986, 1238 EDT	Registration:	N6857E
Aircraft:	CESSNA 441	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal, 3 Serious
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

N6857E WAS TRANSPORTING EXECUTIVES FROM HOLLAND, MI, TO MUSKEGON. THE PILOT WAS EXECUTING AN ASR APPROACH TO RUNWAY 06. THE MDA IS 537 FT AGL. CO-PILOT CALLED OUT 1200 FEET THEN BELOW 1000 FEET, PILOT CONTINUED APPROACH. AIRCRAFT STRUCK TREES TWO MILES FROM RUNWAY AT 15 FEET AGL. THE APPROACH WAS CONDUCTED IN HEAVY FOG CONDITIONS. THE PILOT HAD DESCENDED BELOW APPROACH MINIMUMS ON SEVERAL OCCASIONS IN THE PAST.

Probable Cause and Findings

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

Findings

Occurrence #1: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings

1. (F) WEATHER CONDITION - LOW CEILING
2. (F) WEATHER CONDITION - FOG
3. (C) IN-FLIGHT PLANNING/DECISION - POOR - PILOT IN COMMAND
4. (F) OVERCONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
5. (C) IFR PROCEDURE - IMPROPER USE OF - PILOT IN COMMAND
6. (F) SELF-INDUCED PRESSURE - PILOT IN COMMAND
7. (C) MINIMUM DESCENT ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
8. (C) DECISION HEIGHT - EXCEEDED - PILOT IN COMMAND
9. REMEDIAL ACTION - NOT PERFORMED - PILOT IN COMMAND
10. (F) VISUAL LOOKOUT - NOT POSSIBLE - COPILOT/SECOND PILOT
11. (F) OBJECT - TREE(S)

Factual Information

Pilot Information

Certificate:	Commercial	Age:	60, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	05/30/1986
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	23298 hours (Total, all aircraft), 2500 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N6857E
Model/Series:	441 441	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	441-0244
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	05/09/1986, 100 Hour	Certified Max Gross Wt.:	9850 lbs
Time Since Last Inspection:	80 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	3060 Hours	Engine Manufacturer:	GARRETT
ELT:	Installed, not activated	Engine Model/Series:	TPE331-8-403S
Registered Owner:	HEALTH CARE & RETIREMENT CORP.	Rated Power:	636 hp
Operator:	HEALTH CARE & RETIREMENT CORP.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MKG, 628 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	1236 EDT	Direction from Accident Site:	60°
Lowest Cloud Condition:	Unknown / 1100 ft agl	Visibility	6 Miles
Lowest Ceiling:	Overcast / 1100 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	6 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	120°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	28° C / 23° C
Precipitation and Obscuration:			
Departure Point:	HOLLAND, MI (C19)	Type of Flight Plan Filed:	IFR
Destination:	MUSKEGAN, MI (MKG)	Type of Clearance:	IFR
Departure Time:	1224 EDT	Type of Airspace:	Class D; Class E

Airport Information

Airport:	MUSKEGAN COUNTY (MKG)	Runway Surface Type:	Asphalt
Airport Elevation:	628 ft	Runway Surface Condition:	Wet
Runway Used:	6	IFR Approach:	ASR
Runway Length/Width:	6501 ft / 150 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal, 1 Serious	Aircraft Damage:	Destroyed
Passenger Injuries:	2 Fatal, 2 Serious	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal, 3 Serious	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	RONALD J SEBASTIAN	Report Date:	04/25/1988
Additional Participating Persons:	R. MCELROY; GRAND RAPIDS, MI TERRY SPATH; WICHITA, KS PETER BAKER; PHOENIX, AZ JOSEPH JENSEN; LIMA, OH		
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 pubin@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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