



National Transportation Safety Board Aviation Accident Final Report

Location:	DAYTON, OH	Accident Number:	CHI85FA218
Date & Time:	05/29/1985, 1828 EST	Registration:	N2079A
Aircraft:	CESSNA 425	Aircraft Damage:	Substantial
Defining Event:		Injuries:	1 Serious, 3 None

Flight Conducted Under: Part 91: General Aviation -

Analysis

THE ACFT INVOLVED WAS EXPERIMENTALLY CONFIGURED WITH 4-BLADED PROPS AND WAS ON A TEST FLT TO DETERMINE HANDLING CHARACTERISTICS FOLLOWING A THROTTLE CHOP TO IDLE POWER AT 50 FT AGL. THIS MANEUVER HAD BEEN ACCOMPLISHED TWICE ON THE TEST FLT WITHOUT INCIDENT. ON THE THIRD LANDING, THE PLT LATER STATED, THAT HE RETARDED THE THROTTLES MORE BRISKLY THAN ON PREVIOUS APPROACHES. OBSERVERS ON THE PLANE AND ON THE GROUND THEN SAW A YAW AND A WING DROP. THE RIGHT GEAR STRUCK THE RWY FIRST, FOLLOWED BY THE LEFT AND NOSE GEARS. ALL THREE GEAR THEN SHEARED OFF. THE ACFT SLID TO A STOP OFF THE RWY 975 FT FROM INITIAL IMPACT. A POST-ACCIDENT TEARDOWN OF THE PROPS REVEALED NO PREEXISTING MISADJUSTMENTS OR ABNORMALITIES.

Probable Cause and Findings

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

Findings

Occurrence #1: ABRUPT MANEUVER

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

1. (C) PROPER DESCENT RATE - NOT MAINTAINED - PILOT IN COMMAND
2. (C) REMEDIAL ACTION - DELAYED - PILOT IN COMMAND

Occurrence #2: HARD LANDING

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Occurrence #3: COMPLETE GEAR COLLAPSED

Phase of Operation: LANDING - FLARE/TOUCHDOWN

Findings

3. (F) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Airline Transport	Age:	48, 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:	No
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	10/15/1984
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	12220 hours (Total, all aircraft), 11 hours (Total, this make and model), 3 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N2079A
Model/Series:	425 425	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Experimental	Serial Number:	425-0001
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	Unknown	Certified Max Gross Wt.:	6800 lbs
Time Since Last Inspection:		Engines:	2 Turbo Prop
Airframe Total Time:	876 Hours	Engine Manufacturer:	P&W
ELT:	Installed	Engine Model/Series:	PT6A-112
Registered Owner:	CESSNA AIRCRAFT COMPANY	Rated Power:	450 hp
Operator:	CESSNA AIRCRAFT COMPANY	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	DAY, 1009 ft msl	Distance from Accident Site:	1 Nautical Miles
Observation Time:	1835 EST	Direction from Accident Site:	200°
Lowest Cloud Condition:	Unknown / 25000 ft agl	Visibility	15 Miles
Lowest Ceiling:	Broken / 25000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	3 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	190°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	22° C / 9° C
Precipitation and Obscuration:			
Departure Point:		Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	1815 EST	Type of Airspace:	Class D

Airport Information

Airport:	JAMES M. COX DAYTON INTL (DAY)	Runway Surface Type:	Asphalt
Airport Elevation:	1009 ft	Runway Surface Condition:	Dry
Runway Used:	24L	IFR Approach:	None
Runway Length/Width:	7000 ft / 150 ft	VFR Approach/Landing:	Touch and Go; Traffic Pattern

Wreckage and Impact Information

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

Administrative Information

Investigator In Charge (IIC):	ROBERT BENZON	Report Date:	
Additional Participating Persons:	ROBERT WHITE; WICHITA, KS THOMAS KNOPP; DAYTON, OH JOHN TREY; DAYTON, 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 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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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](#).