



National Transportation Safety Board Aviation Accident Final Report

Location:	Columbus, OH	Accident Number:	CHI07CA058
Date & Time:	01/10/2007, 0330 EST	Registration:	N40AN
Aircraft:	Learjet 35A	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The airplane was substantially damaged during an in-flight recovery after the captain attempted an intentional aileron roll maneuver during cruise flight and lost control. The cargo flight was being operated at night under the provisions of 14 CFR Part 135 at the time of the accident. The captain reported the airplane was "functioning normally" prior to the intentional aileron roll maneuver. The captain stated that the "intentional roll maneuver got out of control" while descending through flight level 200. The captain reported that the airplane "over sped" and experienced "excessive G-loads" during the subsequent recovery. The copilot reported that the roll maneuver initiated by the captain resulted in a "nose-down unusual attitude" and a "high speed dive." Inspection of the airplane showed substantial damage to the left wing and elevator assembly.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to maintain aircraft control during an inflight maneuver which resulted in the design stress limits of the airplane being exceeded. A factor was the excessive airspeed encountered during recovery.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: MANEUVERING

Findings

1. (F) AIRSPEED - EXCESSIVE - PILOT IN COMMAND
2. (C) DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
3. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	30, 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):	Airplane Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Without Waivers/Limitations	Last Medical Exam:	07/01/2006
Occupational Pilot:		Last Flight Review or Equivalent:	09/01/2006
Flight Time:	6400 hours (Total, all aircraft), 1700 hours (Total, this make and model), 5300 hours (Pilot In Command, all aircraft), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Co-Pilot Information

Certificate:	Commercial	Age:	29, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last Medical Exam:	02/01/2006
Occupational Pilot:		Last Flight Review or Equivalent:	05/01/2006
Flight Time:	3500 hours (Total, all aircraft), 600 hours (Total, this make and model), 2900 hours (Pilot In Command, all aircraft), 300 hours (Last 90 days, all aircraft), 100 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	Learjet	Registration:	N40AN
Model/Series:	35A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	35-271
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	10/01/2006, AAIP	Certified Max Gross Wt.:	19600 lbs
Time Since Last Inspection:		Engines:	2 Turbo Fan
Airframe Total Time:	20332 Hours	Engine Manufacturer:	Garrett
ELT:	Installed, not activated	Engine Model/Series:	TFE-731-2C-2B
Registered Owner:	AirNet Systems, Inc.	Rated Power:	3400 lbs
Operator:	AirNet Systems, Inc.	Air Carrier Operating Certificate:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night
Observation Facility, Elevation:	LCK, 744 ft msl	Observation Time:	0357 EST
Distance from Accident Site:		Direction from Accident Site:	
Lowest Cloud Condition:		Temperature/Dew Point:	1° C / 7° C
Lowest Ceiling:	Broken / 2800 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	12 knots, 290°	Visibility (RVR):	
Altimeter Setting:	30.25 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Jacksonville, FL (JAX)	Type of Flight Plan Filed:	IFR
Destination:	Columbus, OH (LCK)	Type of Clearance:	IFR
Departure Time:	0140 EST	Type of Airspace:	

Airport Information

Airport:	Rickenbacker International (LCK)	Runway Surface Type:	
Airport Elevation:	744 ft	Runway Surface Condition:	
Runway Used:	NA	IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	N/A	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	39.813611, -82.927778

Administrative Information

Investigator In Charge (IIC):	Andrew T Fox	Adopted Date:	03/26/2007
Additional Participating Persons:	Mark Harden; Federal Aviation Administration, Cleveland FSDO; Columbus, OH		
Publish Date:			
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.		
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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