



National Transportation Safety Board Aviation Accident Final Report

Location:	MONROE, MI	Accident Number:	CHI98LA151
Date & Time:	05/12/1998, 0250 EDT	Registration:	N617GA
Aircraft:	Dassault DA-20	Aircraft Damage:	Substantial
Defining Event:		Injuries:	2 None
Flight Conducted Under:	Part 135: Air Taxi & Commuter - Non-scheduled		

Analysis

The pilot-in-command reported that the flight controls were free during the preflight and before takeoff checks. He stated the applied power to takeoff and at Vr (125 knots) when he went to pull back on the yoke, it would not move. He stated he tried to pull back three times to no avail. The takeoff was aborted and the airplane traveled off the end of the runway into a field. Examination of the airplane failed to reveal any failure/malfunction which would have prevented normal operation of the flight controls.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the pilot-in-command's inability to rotate during takeoff due to restricted movement of the elevator controls for undetermined reasons.

Findings

Occurrence #1: AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) FLIGHT CONTROL,ELEVATOR - MOVEMENT RESTRICTED
2. REASON FOR OCCURRENCE UNDETERMINED

Occurrence #2: OVERRUN
Phase of Operation: TAKEOFF - ABORTED

Findings

3. ROTATION - NOT POSSIBLE - PILOT IN COMMAND

Factual Information

On May 12, 1998, at 0250 eastern daylight time (edt), a Dassault Falcon DA-20, N617GA, registered to Grand Aire Express, Inc., of Monroe, Michigan, and operated by an airline transport pilot, ran off the end of Runway 21 (5,000'x100' dry/asphalt) at the Monroe- Custer Airport, Monroe, Michigan, after experiencing a stuck elevator control during takeoff. The pilot and co-pilot were not injured. The airplane was substantially damaged. Visual meteorological conditions prevailed and an IFR flight plan was filed. The 14 CFR Part 135 flight was originating at the time of the accident.

The pilot-in-command reported that the flight controls were free when they were checked during the preflight and before takeoff checks. He stated he applied power to takeoff and at Vr (125 knots) when he went to pull back on the yoke, it would not move. He stated he tried to pull back three times to no avail. At this time, he called to abort the takeoff. He stated that he reduced the power to idle and applied maximum braking while the co-pilot extended the airbrakes. He reported that the airplane rolled off the end of the runway at which time he moved the throttles to the idle cutoff position. The airplane came to rest in a farm field off the end of the runway. The pilot-in-command reported that the balanced field length was calculated to be 4,500' with V1 being 123 knots.

The airplane was examined by inspectors from the Federal Aviation Administration Belleville, Michigan, Flight Standards District Office. The inspection of the airplane's flight control systems failed to reveal any failure and/or malfunction which would have resulted in the pilot-in-commands inability to apply aft pressure on the control yoke.

Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	43, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	04/27/1998
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	5700 hours (Total, all aircraft), 200 hours (Total, this make and model), 3090 hours (Pilot In Command, all aircraft), 60 hours (Last 90 days, all aircraft), 25 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Dassault	Registration:	N617GA
Model/Series:	DA-20 DA-20	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	88
Landing Gear Type:	Retractable - Tricycle	Seats:	0
Date/Type of Last Inspection:	AAIP	Certified Max Gross Wt.:	28660 lbs
Time Since Last Inspection:		Engines:	2 Turbo Jet
Airframe Total Time:		Engine Manufacturer:	GE
ELT:	Not installed	Engine Model/Series:	CF700
Registered Owner:	GRAND AIRE EXPRESS INC.	Rated Power:	4500 lbs
Operator:	GRAND AIRE EXPRESS INC.	Operating Certificate(s) Held:	On-demand Air Taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Night/Dark
Observation Facility, Elevation:	TTF, 616 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0158 EDT	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	10 Miles
Lowest Ceiling:	Overcast / 5000 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	29 inches Hg	Temperature/Dew Point:	12° C / 11° C
Precipitation and Obscuration:			
Departure Point:	(TTF)	Type of Flight Plan Filed:	IFR
Destination:	WILMINGTON, OH (ILN)	Type of Clearance:	
Departure Time:	0000	Type of Airspace:	Class G

Airport Information

Airport:	MONROE CUSTER (TTF)	Runway Surface Type:	Macadam
Airport Elevation:	616 ft	Runway Surface Condition:	Dry
Runway Used:	21	IFR Approach:	
Runway Length/Width:	5000 ft / 100 ft	VFR Approach/Landing:	

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:	

Administrative Information

Investigator In Charge (IIC):	TODD J CARLSON	Report Date:	09/28/1999
Additional Participating Persons:	MARTHA M WINNARD; BELLEVILLE, MI		
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.ntsbt.gov/pubdms/ .		

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