



National Transportation Safety Board Aviation Accident Final Report

Location:	Tulsa, OK	Accident Number:	DFW07LA052
Date & Time:	01/02/2007, 1140 CST	Registration:	YV-2045
Aircraft:	Fairchild Merlin SA-226-T	Aircraft Damage:	Substantial
Defining Event:		Injuries:	9 None
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

The twin pressurized turboprop airplane veered to the left and departed the runway during landing on runway 19R. Runway 19R was reported to be a 5,102-foot long by 100-foot wide asphalt runway. The airplane came to rest on the grass between runway 13 and taxiway Juliet. The pilot reported that following a normal full-flap landing, the airplane started to veer to the left as soon as the nose wheel tires touched down on the runway. The pilot was not able to compensate for the uncommanded drift as result of the nose wheel steering mechanism. The airplane sustained structural damage to the nose section & nose wheel assembly. The 7 passengers and 2 crewmembers egressed the airplane normally and sustained no injuries. The reason for the uncommanded left drift could not be determined. A completed NTSB Form 6120.1 was not received from either one of the pilots nor the operator. The weather was reported as calm winds, 10 statute miles visibility, clear skies, temperature 45 degrees Fahrenheit, dew point 28 degrees Fahrenheit, and a barometric pressure setting of 30.41 inches of Mercury.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The loss of control as result of the malfunction of the nose wheel steering mechanism during landing for undetermined reasons.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: LANDING - ROLL

Findings

1. LANDING GEAR,NOSE GEAR - UNCOMMANDED
 2. DIRECTIONAL CONTROL - NOT POSSIBLE - PILOT IN COMMAND
 3. (C) LANDING GEAR,STEERING SYSTEM - FAILURE
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Occurrence #2: NOSE GEAR COLLAPSED
Phase of Operation: LANDING - ROLL

Findings

4. LANDING GEAR,NOSE GEAR - COLLAPSED

Factual Information

On January 2, 2007, at 1140 central standard time, a twin-engine Fairchild Merlin SA-226-T airplane, Venezuelan registration YV-2045, was substantially damaged following a loss of control while landing at the Richard L. Jones Jr. Airport (KRVS) near Tulsa, Oklahoma. The airplane was owned and operated by a private individual in Caracas, Venezuela. The airline transport rated pilot, the commercial pilot functioning as first officer, and the 7 passengers were not injured. Visual meteorological conditions for the 14 Code of Federal Regulations Part 91 business flight. The flight originated at the Fort Lauderdale Executive Airport (KFXE), near Fort Lauderdale, Florida, at 0740, with KRVS as its intended destination.

Tower personnel reported that the twin-engine airplane veered to the left and departed the runway during the landing roll on Runway 19R. Runway 19R was reported to be a 5,102-foot long, by 100-foot wide asphalt runway. The airplane came to an abrupt stop in the grassy area between Runway 13 and Taxiway Juliet, after the nose landing gear assembly dug into the soft ground and collapsed.

The pilot reported that following a "normal" full-flap landing, he was unable to maintain directional control of the airplane due to the failure of the nose wheel steering mechanism. The airplane entered an uncommanded left drift which he could not compensate for. The airplane departed the left side of the runway.

Examination of the pressurized twin-turboprop airplane revealed structural damage to the lower portion of the nose section, as well as damage to the support structure for the nose landing gear assembly. All propeller blades were damaged upon ground contact. None of the 4 main tires were blown and the wheel brakes appeared to be functioning and in good condition. There was no fire. The 7 passengers and 2 crewmembers were able to egress the airplane normally and were not injured.

The reason for the uncommanded nose wheel steering deflection could not be determined. A completed NTSB Form 6120.1/2 was not received from either the operator or the pilot.

The weather was reported as calm winds, visibility 10 miles, clear skies, temperature 45 degrees Fahrenheit, dew point 28 degrees Fahrenheit, and a barometric pressure setting of 30.41 inches of Mercury.

Pilot Information

Certificate:	Airline Transport	Age:	, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1	Last FAA Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:	5000 hours (Total, all aircraft), 1500 hours (Total, this make and model)		

Co-Pilot Information

Certificate:		Age:	
Airplane Rating(s):		Seat Occupied:	
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):		Second Pilot Present:	Yes
Instructor Rating(s):		Toxicology Performed:	
Medical Certification:		Last FAA Medical Exam:	
Occupational Pilot:		Last Flight Review or Equivalent:	
Flight Time:			

Aircraft and Owner/Operator Information

Aircraft Make:	Fairchild Merlin	Registration:	YV-2045
Model/Series:	SA-226-T	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	TT-425
Landing Gear Type:	Retractable - Tricycle	Seats:	10
Date/Type of Last Inspection:	Continuous Airworthiness	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:		Engines:	2 Turbo Prop
Airframe Total Time:	3577 Hours at time of accident	Engine Manufacturer:	Garrett-AiResearch
ELT:	Installed, not activated	Engine Model/Series:	TPE-331
Registered Owner:	UNK	Rated Power:	1000 hp
Operator:	UNK	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	KRVS, 638 ft msl	Distance from Accident Site:	
Observation Time:	1144 CST	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:	Variable	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.41 inches Hg	Temperature/Dew Point:	7°C / -2°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Fort Lauderdale, FL (KFYE)	Type of Flight Plan Filed:	IFR
Destination:	Tulsa, OK (KRVS)	Type of Clearance:	IFR
Departure Time:	0740 CST	Type of Airspace:	

Airport Information

Airport:	Richard L. Jones Jr (KRVS)	Runway Surface Type:	Asphalt
Airport Elevation:	638 ft	Runway Surface Condition:	Dry
Runway Used:	19R	IFR Approach:	LOC-backcourse
Runway Length/Width:	5102 ft / 100 ft	VFR Approach/Landing:	Full Stop

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	7 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	9 None	Latitude, Longitude:	36.038333, -95.984444

Administrative Information

Investigator In Charge (IIC):	Hector R Casanova	Report Date:	12/20/2007
Additional Participating Persons:	Mike Boler; FAA FSDO; Oklahoma City, OK		
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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