



National Transportation Safety Board Aviation Accident Final Report

Location:	Wichita, KS	Accident Number:	CEN14LA008
Date & Time:	10/15/2013, 1904 CDT	Registration:	N610AS
Aircraft:	EMBRAER-EMPRESA BRASILEIRA DE EMB-500	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General Aviation - Positioning		

Analysis

The pilot flying stated that he had recently completed simulator training in the airplane type and that the accident flight was his first flight in an actual airplane of that type. The pilot-in-command had the pilot flying sit in the left seat for the flight and allowed him to perform the approach and landing. During preflight and while airborne, the pilots discussed braking procedures and techniques, which included the need to apply braking evenly and firmly. During landing, the pilot applied brakes, and, a few seconds later, the airplane began swerving left and right. The airplane exited the runway and stopped. The airplane was equipped with a flight data recorder, and no anomalies were noted in the data that would have contributed to the accident. The accident likely occurred as a result of the pilot's improper brake application, which resulted in the loss of directional control.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper brake application during landing, which resulted in a loss of directional control.

Findings

Aircraft	Directional control - Not attained/maintained (Cause)
Personnel issues	Total experience w/ equipment - Copilot Aircraft control - Pilot (Cause)

Factual Information

On October 15, 2013, about 1900 central daylight time, an Embraer EMB-500, N610AS, was substantially damaged when it departed the runway while landing at Colonel James Jabara Airport (KAAO), Wichita, Kansas. Both of the Airline Transport rated pilots were uninjured. The airplane was registered to and operated by Executive Flight Services, Inc., and doing business as Executive Airshare. The airplane was being operated under the provisions of 14 Code of Federal Regulations Part 91 as a repositioning flight. Visual meteorological conditions prevailed for the flight, which operated on an instrument flight rules flight plan. The flight originated from Charles B. Wheeler Downtown Airport (KMKC), Kansas City, Missouri at 1816.

The pilot flying stated he had recently completed training in the Embraer EMB-500, and that the accident flight was his first flight in an actual EMB-500 airplane. The pilot-in-command elected to place the pilot in the left seat for the flight, and allowed him to perform the approach and landing. The pilots discussed braking procedures and techniques during both preflight and while airborne, which included the necessity to apply braking evenly and firmly.

The pilot stated the landing was firm, but not a hard landing, and that the first portion of the landing rollout was "fine". The airplane began oscillating left and right a few seconds after applying full braking, and the airplane became uncontrollable and exited the runway. The airplane came to a stop and both pilots exited the airplane.

The airplane was equipped with a flight data recorder. The BRAKE FAIL and BRAKE RH CONTROL VALVE FAIL messages were logged 16-17 seconds after the landing transition. The wheel speeds were zero at the time both messages were recorded. The data did not reveal any braking anomalies or maintenance codes while the airplane was in motion.

History of Flight

Landing-landing roll	Loss of control on ground (Defining event) Runway excursion
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Co-Pilot Information

Certificate:	Airline Transport	Age:	35
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
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:	02/01/2013
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	09/30/2013
Flight Time:	5640 hours (Total, all aircraft), 1 hours (Total, this make and model), 3643 hours (Pilot In Command, all aircraft), 32 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Airline Transport	Age:	40
Airplane Rating(s):	Multi-engine Land	Seat Occupied:	Right
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 Without Waivers/Limitations	Last Medical Exam:	08/05/2013
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	06/14/2013
Flight Time:	7312 hours (Total, all aircraft), 310 hours (Total, this make and model), 5512 hours (Pilot In Command, all aircraft), 148 hours (Last 90 days, all aircraft), 33 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	EMBRAER-EMPRESA BRASILEIRA DE	Registration:	N610AS
Model/Series:	EMB-500 NO SERIES	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	50000044
Landing Gear Type:	Retractable - Tricycle	Seats:	
Date/Type of Last Inspection:	08/22/2013, AAIP	Certified Max Gross Wt.:	10472 lbs
Time Since Last Inspection:		Engines:	2 Turbo Fan
Airframe Total Time:	2294 Hours	Engine Manufacturer:	P&W CANADA
ELT:	Installed, not activated	Engine Model/Series:	PW617F-E
Registered Owner:	EXECUTIVE AIRSHARE CORP	Rated Power:	1820 lbs
Operator:	EXECUTIVE AIRSHARE CORP	Air Carrier Operating Certificate:	Commuter Air Carrier (135); Other Operator of Large Aircraft
Operator Does Business As:	Executive Airshare	Operator Designator Code:	E07A

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dusk
Observation Facility, Elevation:	AAO	Observation Time:	2354 UTC
Distance from Accident Site:	0 Nautical Miles	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Temperature/Dew Point:	13° C / 3° C
Lowest Ceiling:	None	Visibility	10 Miles
Wind Speed/Gusts, Direction:	10 knots, 320°	Visibility (RVR):	
Altimeter Setting:	30.08 inches Hg	Visibility (RVV):	
Precipitation and Obscuration:			
Departure Point:	KANSAS CITY, MO (MKC)	Type of Flight Plan Filed:	IFR
Destination:	Wichita, KS (KAAO)	Type of Clearance:	IFR
Departure Time:	1816 CDT	Type of Airspace:	Class E

Airport Information

Airport:	Colonel James Jabara Airport (KAAO)	Runway Surface Type:	Concrete
Airport Elevation:	1421 ft	Runway Surface Condition:	Dry
Runway Used:	36	IFR Approach:	None
Runway Length/Width:	6101 ft / 100 ft	VFR Approach/Landing:	Full Stop; Straight-in

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:	37.747778, -97.221111 (est)

Administrative Information

Investigator In Charge (IIC):	Daniel Baker	Adopted Date:	08/14/2014
Additional Participating Persons:			
Publish Date:	08/14/2014		
Investigation Docket:	http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=88193		

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