



# Aviation Investigation Factual Report

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<b>Location:</b>	Raleigh, North Carolina	<b>Accident Number:</b>	DCA16CA041
<b>Date &amp; Time:</b>	January 3, 2016, 16:30 Local	<b>Registration:</b>	N643RW
<b>Aircraft:</b>	Embraer ERJ 170 100 SE	<b>Aircraft Damage:</b>	None
<b>Defining Event:</b>	Turbulence encounter	<b>Injuries:</b>	1 Serious, 71 None
<b>Flight Conducted Under:</b>	Part 121: Air carrier - Scheduled		

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## Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	34, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Left
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Unknown
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	July 6, 2015
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	July 24, 2015
<b>Flight Time:</b>	8534 hours (Total, all aircraft), 6239 hours (Total, this make and model)		

## Co-pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	35, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Right
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	Unknown
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	Yes
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Without waivers/limitations	<b>Last FAA Medical Exam:</b>	August 31, 2015
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	July 15, 2015
<b>Flight Time:</b>	(Estimated) 8300 hours (Total, all aircraft), 1300 hours (Total, this make and model)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Embraer	<b>Registration:</b>	N643RW
<b>Model/Series:</b>	ERJ 170 100 SE 100SE	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>	2005	<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Transport	<b>Serial Number:</b>	17000060
<b>Landing Gear Type:</b>	Tricycle	<b>Seats:</b>	74
<b>Date/Type of Last Inspection:</b>		<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>		<b>Engines:</b>	2 Turbo fan
<b>Airframe Total Time:</b>		<b>Engine Manufacturer:</b>	GE
<b>ELT:</b>		<b>Engine Model/Series:</b>	CF34
<b>Registered Owner:</b>	SHUTTLE AMERICA CORP	<b>Rated Power:</b>	
<b>Operator:</b>	SHUTTLE AMERICA CORP	<b>Operating Certificate(s) Held:</b>	Flag carrier (121)
<b>Operator Does Business As:</b>		<b>Operator Designator Code:</b>	UHLA

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	KRDU	<b>Distance from Accident Site:</b>	40 Nautical Miles
<b>Observation Time:</b>	15:51 Local	<b>Direction from Accident Site:</b>	160°
<b>Lowest Cloud Condition:</b>	Few / 15000 ft AGL	<b>Visibility</b>	
<b>Lowest Ceiling:</b>	Broken / 25000 ft AGL	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	7 knots / None	<b>Turbulence Type Forecast/Actual:</b>	/ Convective
<b>Wind Direction:</b>	210°	<b>Turbulence Severity Forecast/Actual:</b>	/ Moderate
<b>Altimeter Setting:</b>	29.92 inches Hg	<b>Temperature/Dew Point:</b>	6°C / 1°C
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Palm Beach, FL (KPBI)	<b>Type of Flight Plan Filed:</b>	IFR
<b>Destination:</b>	Newark, NJ (KEWR)	<b>Type of Clearance:</b>	IFR
<b>Departure Time:</b>	15:00 Local	<b>Type of Airspace:</b>	Class A

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Serious, 3 None	<b>Aircraft Damage:</b>	None
<b>Passenger Injuries:</b>	68 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 Serious, 71 None	<b>Latitude, Longitude:</b>	35.877498,-78.787498(est)

## Administrative Information

**Investigator In Charge (IIC):** Helson, David

**Additional Participating Persons:**

**Report Date:** August 24, 2016

**Last Revision Date:**

**Investigation Class:** [Class](#)

**Note:** This accident report documents the factual circumstances of this accident as described to the NTSB.

**Investigation Docket:** <https://data.nts.gov/Docket?ProjectID=92535>

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