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## Loss of rudder control, Boeing 737-201, June 9, 1996

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**Micro-summary:** This Boeing 737-201 experienced a loss of rudder control on approach.

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**Event Date:** 1996-06-09 at 2200 EDT

**Investigative Body:** National Transportation Safety Board (NTSB), USA

**Investigative Body's Web Site:** <http://www.nts.gov/>

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1. Accident reports can be and sometimes are revised. Be sure to consult the investigative agency for the latest version before basing anything significant on content (e.g., thesis, research, etc).
  2. Readers are advised that each report is a glimpse of events at specific points in time. While broad themes permeate the causal events leading up to crashes, and we can learn from those, the specific regulatory and technological environments can and do change. ***Your company's flight operations manual is the final authority as to the safe operation of your aircraft!***
  3. Reports may or may not represent reality. Many many non-scientific factors go into an investigation, including the magnitude of the event, the experience of the investigator, the political climate, relationship with the regulatory authority, technological and recovery capabilities, etc. It is recommended that the reader review all reports analytically. Even a "bad" report can be a very useful launching point for learning.
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		NTSB ID: DCA96IA061		Aircraft Registration Number: N221US	
		Occurrence Date: 06/09/1996		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
Location/Time					
Nearest City/Place RICHMOND		State VA	Zip Code 23231	Local Time 2200	Time Zone EDT
Airport Proximity: Unknown		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series B-737-201		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
Narrative					
<p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>ON June 10, 1996, Eastwind Airlines flight 517, a Boeing 737-201, N221US, experienced a reported loss of rudder control while on approach to Richmond, Virginia. The airplane was on a regularly scheduled passenger flight from Trenton, NJ to Richmond. There were 48 passengers, 2 pilots and 3 flight attendants on board. There were no injuries or damage to the airplane as a result of the incident. At the time of the event the airplane's airspeed was about 250 knots and at 4,000 feet MSL.</p> <p>The captain reported that he was hand flying the airplane and he felt a slight rudder "bump" to the right. He asked the first officer if he had felt the bump, then the airplane suddenly rolled to the right. He reported that he applied opposite rudder but that the rudder felt stiff. He stated the he applied opposite aileron and used asymmetric power to keep the airplane upright. He stated that after he declared an emergency to the approach controller, he and the first officer performed the emergency checklist. The captain reported that as part of the checklist they turned off the yaw damper. He reported that the airplane became controllable, but was not certain if the problem when away at the same time that the yaw damper was turned off.</p> <p>It is reported that the airplane has previously had problems with uncommanded rudder deflections. Previous reports have been of "rudder bumps" during departure and that the airplane would not trim properly. The FDR was removed from the airplane for examination.</p>					
FACTUAL REPORT - AVIATION					
Page 1					

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: DCA96IA061				
		Occurrence Date: 06/09/1996				
		Occurrence Type: Incident				
<b>Landing Facility/Approach Information</b>						
Airport Name		Airport ID:	Airport Elevation Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:						
Runway Surface Condition:						
Type Instrument Approach:						
VFR Approach/Landing:						
<b>Aircraft Information</b>						
Aircraft Manufacturer Boeing		Model/Series B-737-201		Serial Number		
Airworthiness Certificate(s):						
Landing Gear Type:						
Homebuilt Aircraft? No	Number of Seats:	Certified Max Gross Wt. LBS		Number of Engines:		
Engine Type: Unknown	Engine Manufacturer:		Model/Series:	Rated Power:		
- Aircraft Inspection Information						
Type of Last Inspection Unknown	Date of Last Inspection	Time Since Last Inspection Hours		Airframe Total Time Hours		
- Emergency Locator Transmitter (ELT) Information						
ELT Installed?	ELT Operated?	ELT Aided in Locating Accident Site?				
<b>Owner/Operator Information</b>						
Registered Aircraft Owner		Street Address				
		City	State	Zip Code		
Operator of Aircraft EASTWIND AIRLINES		Street Address 8025 NORTH POINT BOULEVARD				
		City WINSTON-SALEM	State NC	Zip Code 27106		
Operator Does Business As: EASTWIND AIRLINES			Operator Designator Code: EW09			
- Type of U.S. Certificate(s) Held:						
Air Carrier Operating Certificate(s): Flag Carrier/Domestic						
Operating Certificate:			Operator Certificate:			
Regulation Flight Conducted Under: Part 121: Air Carrier						
Type of Flight Operation Conducted: Scheduled; Domestic; Passenger Only						
FACTUAL REPORT - AVIATION						

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: DCA961A061	
	Occurrence Date: 06/09/1996	
	Occurrence Type: Incident	

**First Pilot Information**

Name On File	City	State	Date of Birth	Age
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Sex: U	Seat Occupied: Unknown	Principal Profession: Unknown	Certificate Number: On File
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Certificate(s):

Airplane Rating(s):

Rotorcraft/Glider/LTA:

Instrument Rating(s):

Instructor Rating(s):

Type Rating/Endorsement for Accident/Incident Aircraft?	Current Biennial Flight Review?
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Medical Cert.: Unknown	Medical Cert. Status: Unknown	Date of Last Medical Exam:
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- Flight Time Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Multi-Engine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time										
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Seatbelt Used?	Shoulder Harness Used?	Toxicology Performed?	Second Pilot?
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**Flight Plan/Itinerary**

Type of Flight Plan Filed: IFR

Departure Point Same as Accident/Incident Location	State	Airport Identifier RIC	Departure Time 0000	Time Zone
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Destination Local Flight	State	Airport Identifier	
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Type of Clearance:

Type of Airspace:

**Weather Information**

Source of Briefing:

Method of Briefing:

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: DCA961A061	
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<b>Weather Information</b>					
WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
RIC	0000		0 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			900 Ft. AGL	Condition of Light: Not Reported	
Lowest Ceiling: Broken		0 Ft. AGL	Visibility: 10 SM	Altimeter: 30.00	"Hg
Temperature: 22 °C	Dew Point: 21 °C	Wind Direction: 150		Density Altitude: Ft.	
Wind Speed: 4	Gusts:	Weather Conditions at Accident Site: Visual Conditions			
Visibility (RVR): 0 Ft.	Visibility (RVV) 0 SM	Intensity of Precipitation: Unknown			
Restrictions to Visibility:					
Type of Precipitation: None					

<b>Accident Information</b>		
Aircraft Damage: None	Aircraft Fire: Unknown	Aircraft Explosion: Unknown

Classification: U.S. Registered/U.S. Soil					
- Injury Summary Matrix	Fatal	Serious	Minor	None	TOTAL
First Pilot				1	1
Second Pilot				1	1
Student Pilot					
Flight Instructor					
Check Pilot					
Flight Engineer					
Cabin Attendants				3	3
Other Crew					
Passengers				48	48
- TOTAL ABOARD -				53	53
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	53	53

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: DCA96IA061

Occurrence Date: 06/09/1996

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

THOMAS E. HAUETER

Additional Persons Participating in This Accident/Incident Investigation: