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## Uncommanded roll to the right on takeoff, Boeing 737-300, January 23, 1995

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**Micro-summary:** This Boeing 737-300 experienced an uncommanded roll to the right.

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**Event Date:** 1995-01-23 at 2115 MST


**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!***
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 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: LAX951A086		Aircraft Registration Number: N155AW	
		Occurrence Date: 01/23/1995		Most Critical Injury: None	
		Occurrence Type: Incident		Investigated By: NTSB	
<b>Location/Time</b>					
Nearest City/Place ALBUQUERQUE		State NM	Zip Code 87117	Local Time 2115	Time Zone MST
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
<b>Aircraft Information Summary</b>					
Aircraft Manufacturer BOEING		Model/Series 737-300		Type of Aircraft Airplane	
Sightseeing Flight: No			Air Medical Transport Flight: No		
<b>Narrative</b>					
Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:					
<p>On January 23, 1995, at 2115 mountain standard time, the pilot of a Boeing 737-300, N155AW, experienced an uncommanded roll to the right during takeoff from runway 26 from Albuquerque(ABQ), New Mexico. The aircraft, owned by America West Airlines, Inc., and operated under 14 CFR Part 121 as flight 959, was not damaged, nor were there any injuries to the crew or passengers. Visual meteorological conditions existed at the time.</p> <p>After this incident, this aircraft was involved in three other separate uncommanded momentary rolls to the right during rotation at Las Vegas, Nevada; Boston, Massachusetts; and Columbus, Ohio. For each occurrence, the pilots were able to correct the situation and continue with the respective flights.</p> <p>After the initial notification from America West Airlines on the first two incidents, the flight data recorder and a broken upper wing surface support rod from the fixed panel inboard of the No. 6 spoiler, were removed and sent to the National Transportation Safety Board Metallurgical Laboratory for analysis. Maintenance personnel adjusted the spoilers and ailerons. The aircraft was test flown and returned to service.</p> <p>The third incident occurred two days later during rotation at Boston. The aircraft continued to Columbus, where it was grounded. The aircraft was returned to Phoenix, Arizona, on a ferry flight for further examination. During the departure from Columbus, the fourth incident occurred.</p> <p>A verbal report from the America West 737 fleet manager on March 2, 1995, indicated that the left main landing gear strut had been overserviced with nitrogen gas over a period of time. According to the fleet manager, when the aircraft weight on the main landing gear is reduced during rotation, the overpressurized left strut lifts the left wing into the air, giving the pilots a rolling sensation to the right. The left main landing gear strut was reserviced with oil and nitrogen, multiple test flights were flown with no repeat of the problem, and the aircraft has since been returned to service.</p>					
<b>ADDITIONAL INFORMATION</b>					
<p>The aircraft had 19,943 cycles as of January 26, 1995. A "C" check was done on August 25, 1994, and an "A-9" check was completed on January 13, 1995.</p> <p>The metallurgical examination showed that the support rod fractured at an attachment to one of the clevis fittings. The separation occurred in line with the furthest inboard rivet. Fracture matching disclosed that a portion of the rod shaft separation did not mate with the shaft fracture that was attached to the clevis fitting. Scanning electron microscopic (SEM) viewing of the cleaned fracture disclosed evidence of striations indicative of high-cycle fatigue cracking over most of the fracture surface. The metallurgist report is attached for more information.</p>					
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 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: LAX951A086			
		Occurrence Date: 01/23/1995			
		Occurrence Type: Incident			
<b>Landing Facility/Approach Information</b>					
Airport Name	Airport ID:	Airport Elevation	Runway Used	Runway Length	Runway Width
ALBUQUERQUE INT'L AIRPORT	ABQ	5352 Ft. MSL	26	13373	300
Runway Surface Type: Asphalt					
Runway Surface Condition: Dry					
Type Instrument Approach: NONE					
VFR Approach/Landing: None					
<b>Aircraft Information</b>					
Aircraft Manufacturer		Model/Series		Serial Number	
BOEING		737-300		23777	
Airworthiness Certificate(s): Transport					
Landing Gear Type: Retractable - Tricycle					
Homebuilt Aircraft? No	Number of Seats: 149	Certified Max Gross Wt.	125000 LBS	Number of Engines: 2	
Engine Type:	Engine Manufacturer:	Model/Series:	Rated Power:		
Turbo Fan	CFM	CFM-56-3	20000 LBS		
- Aircraft Inspection Information					
Type of Last Inspection	Date of Last Inspection	Time Since Last Inspection	Airframe Total Time		
AAIP	01/1995	2 Hours	25231 Hours		
- Emergency Locator Transmitter (ELT) Information					
ELT Installed? No	ELT Operated?	ELT Aided in Locating Accident Site?			
<b>Owner/Operator Information</b>					
Registered Aircraft Owner		Street Address			
		4000 E. SKY HARBOR BLVD.			
AMERICA WEST AIRLINES, INC.		City	State	Zip Code	
		PHOENIX	AZ	85034	
Operator of Aircraft		Street Address			
		4000 E. SKY HARBOR BLVD.			
AMERICA WEST AIRLINES, INC.		City	State	Zip Code	
		PHOENIX	AZ	85034	
Operator Does Business As:			Operator Designator Code: AWXA		
- 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: LAX95IA086
	Occurrence Date: 01/23/1995
	Occurrence Type: Incident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 55
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Sex: M	Seat Occupied: Left	Principal Profession: Civilian Pilot	Certificate Number: On File
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Certificate(s): Airline Transport; Commercial

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: None

Instrument Rating(s): Airplane

Instructor Rating(s): None

Type Rating/Endorsement for Accident/Incident Aircraft? Yes	Current Biennial Flight Review?
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Medical Cert.: Class 1	Medical Cert. Status: Valid Medical--w/ waivers/lim.	Date of Last Medical Exam: 01/1995
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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	12000									
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Seatbelt Used? Yes	Shoulder Harness Used? Yes	Toxicology Performed? No	Second Pilot? Yes
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**Flight Plan/Itinerary**

Type of Flight Plan Filed: IFR

Departure Point Same as Accident/Incident Location	State	Airport Identifier	Departure Time 2115	Time Zone MST
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Destination LAS VEGAS	State NV	Airport Identifier LAS	
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Type of Clearance: IFR

Type of Airspace: Class B

**Weather Information**

Source of Briefing: Company

Method of Briefing:

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: LAX95IA086
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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
ABQ	2150	MST	0 Ft. MSL	0 NM	0 Deg. Mag.
Sky/Lowest Cloud Condition: Unknown			0 Ft. AGL	Condition of Light: Night/Dark	
Lowest Ceiling: Broken		14000 Ft. AGL		Visibility: 15 SM	Altimeter: 30.00 "Hg
Temperature: 3 °C	Dew Point: -7 °C	Wind Direction: 120		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: None					
Type of Precipitation: None					

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

Classification: U.S. Registered/U.S. Soil					
<b>- Injury Summary Matrix</b>	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				32	32
- TOTAL ABOARD -				37	37
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	37	37

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: LAX95IA086

Occurrence Date: 01/23/1995

Occurrence Type: Incident

Administrative Information

Investigator-In-Charge (IIC)

R G. MUCHO,

Additional Persons Participating in This Accident/Incident Investigation:

JERRY DIEHL  
4000 E. SKY HARBOR BLVD.  
PHOENIX, AZ 85034

LONNIE GILES  
FAA-CMO  
PHOENIX, AZ 85034