# Nose gear collapse on landing, McDonnell Douglas MD-82, February 17, 1997

Micro-summary: This McDonnell Douglas MD-82 experienced a nosewheel collapse on landing.

Event Date: 1997-02-17 at 1259 EST

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

Investigative Body's Web Site: http://www.ntsb.gov/

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#### National Transportation Safety Board NTSB ID: IAD97IA048 Aircraft Registration Number: N34838 FACTUAL REPORT Occurrence Date: 02/17/1997 Most Critical Injury: None Occurrence Type: Incident Investigated By: NTSB ETYBO Location/Time Nearest City/Place State Zip Code Local Time Time Zone **NEWARK** 1259 NJ 07114 **EST** Distance From Landing Facility: 1 Direction From Airport: 40 Airport Proximity: On Airport Aircraft Information Summary Aircraft Manufacturer Model/Series Type of Aircraft McDonnell Douglas MD-82 Airplane Sightseeing Flight: No Air Medical Transport Flight: No

## Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

On February 17, 1997, at about 1259 eastern standard time, a McDonnell Douglas MD-82, N34838, operated by Continental Airlines as Flight 134, experienced an unsafe nose gear light while on approach to Newark International Airport, Newark, New Jersey. The flight crew recycled the landing gear and all indications were that the gear was down and locked. After landing on runway 4R, and during the roll out, the nose gear collapsed and the aircraft skidded to a stop. The two flight crewmembers, three flight attendants, one jumpseat rider and 141 passengers reported no injuries. Passengers and crew disembarked the aircraft through the aft galley door (L4) using mobile stairs and were bussed to the terminal. The flight originated from Denver, Colorado, exact time unknown. Instrument meteorological conditions prevailed, and an instrument flight rules (IFR) flight plan had been filed. The flight was conducted under the provisions of Title 14 Code of Federal Regulations (CFR) Part 121 as a domestic, scheduled passenger/cargo flight.

After an inspection, it was determined that the nose landing gear upper lock link had fractured. This component and the lower lock link were sent to the National Transportation Safety Board's Materials Laboratory for examination.

According to the Materials Laboratory Factual Report, the upper lock link had accumulated 28,978 service hours and 24,511 cycles since original manufacture. The lock link was overhauled 13,515 and 6,317 hours prior to the failure. The upper lock link was fractured through the "I" beam section near its lower end about 3 inches from the overcenter pivot with the lower lock link. According to the report, the fracture features were typical of fatigue which progressed over a large portion of the fracture. No mechanical, corrosion, or manufacturing discontinuities were visible at the fatigue origin. The material met of the hardness specifications.

At the time of the failure, there was an Airworthiness Directive AD-97-02-10 about the upper lock link. It required inspections of assemblies prior to 10,000 total cycles or within 90 days of its issue, February 11, 1997, whichever came later. Continental Airlines was in the process of inspecting its entire fleet of affected aircraft when this incident occurred.

National Transportation Safety Board

NTSB ID: IAD97IA048

			irrence Date	e: 02/17/1997									
AVIATION	AVIATION Occurre					rence Type: Incident							
Landing Facility/Approach Inf	ormation												
Airport Name	Airport ID:	Airport Eleva	vation Runv		vay Used	Runwa	ay Lengt	th	Runv	way Width			
NEWARK INTERNATIONAL E				18 Ft	18 Ft. MSL 4R			9300			150		
Runway Surface Type: Asphalt					•					·			
Runway Surface Condition: Dry													
Type Instrument Approach:													
VFR Approach/Landing:													
Aircraft Information													
Aircraft Manufacturer			Mode	el/Series					Serial	Serial Number			
McDonnell Douglas			MD-	82					4963	4			
Airworthiness Certificate(s): Trans	oort												
Landing Gear Type: Retractable -	Tricycle												
Homebuilt Aircraft? No	craft? No Number of Seats: 172				Certified Max Gross Wt.			140000 LBS Numb			per of Engines: 2		
= 11			Engine M P&W	Engine Manufacturer: P&W				Model/Series: JT8D			Rated Power: 20000 LBS		
- Aircraft Inspection Information													
Type of Last Inspection			Date of La	Date of Last Inspection			Time Since Last Inspection					tal Time	
Unknown								Но	ours			Hours	
- Emergency Locator Transmitter (E	LT) Information												
ELT Installed?	ELT Operat	ted?			ELT Aid	ded in	Locating Ac	cident S	Site?				
Owner/Operator Information													
Registered Aircraft Owner			Street	Address	I FN PAF	5K/\/	AV STF 10	00					
CONTINENTAL AIRLINES			City	1 7							е	Zip Code	
			Ctrast	HOUST	NC					TX		77019	
Operator of Aircraft			Street Address Same as Reg'd Aircraft Owner										
Same as Reg'd Aircraft Owner			City							Stat	е	Zip Code	
Operator Does Business As:			-			Ор	erator Desigr	nator Co	ode: CA	LA			
- Type of U.S. Certificate(s) Held:													
Air Carrier Operating Certificate(s):	Flag Carrier/Don	nestic											
Operating Certificate: Large Aircraft Operator Operator Operator Certificate:													
Regulation Flight Conducted Under	Part 121: Air Ca	arrier											
Type of Flight Operation Conducted	Scheduled; Do	mestic;	Passenge	er/Cargo									
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National Transportation Safety Board

FACTUAL REPORT

AVIATION

NTSB ID: IAD97IA048

Occurrence Date: 02/17/1997

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	AVIATI	Occurrence Type: Incident											
First Pilot	Information												
Name City										State Da		Date of Birth	Age
On File On										On	File	On File	52
Sex: M	Seat Occupied	n Pilot			Ce	ertificat	e Numl	ber: On File					
Certificate(s): Airline Transport													
Airplane Rating(s): Multi-engine Land; Single-engine Land													
Rotorcraft/Glider/LTA: None													
Instrument	Rating(s): Airp	lane											
Instructor R	ating(s): None	е											
Type Rating	g/Endorsement fo	or Accident/Ir	ncident Aircra	<sup>aft?</sup> Yes			Curre	ent Bien	nial Flight	Reviev	v?		
Medical Ce	rt.: Class 1	Medica	al Cert. Statu	s: Valid Me	dicalw/ wa	ivers/lir	n.		Date of L	ast Me	edical E	xam: 10/1997	
- Flight Tim	e Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Mult-Engine		ight Actual		Instrument Simulated		Rotorcraft	Glider	Lighter Than Air
Total Time													
Pilot In Con	nmand(PIC)									$\perp$			
Instructor													
Last 90 Day	/S												
Last 30 Day										$\rightarrow$			
Last 24 Hou	ırs	<u> </u>				<u> </u>							
Seatbelt Us	ed? Yes	Shou	ılder Harness	s Used? Yes			Toxicolog	y Perfo	rmed? No		S	econd Pilot? Ye	es
Elight Dla	n/Itinerary												
	ht Plan Filed: <b>[F</b>	 R											
Departure F						Т	State Airport I		oort Identifier		Departure Time		Time Zone
DENVER							CO			0000			
Destination							State	Air	port Identif	ier			
Same as Accident/Incident Location							EWR			.01			
Type of Cle	arance: IFR												
Type of Airspace: Class B													
Weather Information													
Source of E	Briefing: Compa	any											
Method of Briefing:													
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FACTUAL REPORT
AVIATION

NTSB ID: IAD97IA048

Occurrence Date: 02/17/1997

AVIATION			Oce	Occurrence Type: Incident									
Weather Information													
WOF ID	Observation Time	Time Zone	WOF	Elevatio	n	WOF Distance From Accident Site					Direction From Accident Site		
	0000			0 Ft. N	MSL				0 NM		0 Deg. Mag		
Sky/Lowes	st Cloud Condition: Unkr	nown		0 Ft. AGL					Condition of Light: Day				
Lowest Ce	Lowest Ceiling: Unknown			0 Ft. AGL			lity:	ty: 0		Altimeter:		"Hg	
Temperatu	ıre: °C	Dew Point:		°C	Wind	Direction:				nsity Altitude:	Ft.		
Wind Spee	ed:	Gusts:			Weath	ner Condti	ons at Accid	lent Si	te: Instrum	ent C	Conditions		
Visibility (R	RVR): 0 Ft.	Visibility	(RVV)	0	SM	Intensity	of Precipita	ition: (	Jnknown				
Restriction	ns to Visibility:						<u> </u>						
Type of Pre	ecipitation:												
Accident	Information												
Aircraft Dar	mage: Minor		Airc	Aircraft Fire: None					Aircraft Exp	losio	n None		
Classificati	ion: U.S. Registered/U	.S. Soil											
- Injury Su	mmary Matrix	Fatal	Serious	Minor		None	TOTAL						
First Pi	ilot					1	1						
Second	d Pilot					1	1						
Studen	nt Pilot												
Flight In	nstructor												
Check	Pilot												
Flight E	Engineer												
Cabin /	Attendants					3	3						
Other C	Crew					1	1						
Passen	ngers				$\top$	141	141						
- TOTAL A	ABOARD -					147	147						
Other G	3round	0	0		0		0						
- GRANE	D TOTAL -	0	0		0	147	147						

National Transportation Safety Board

# FACTUAL REPORT AVIATION

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Occurrence Date: 02/17/1997

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Investigator-In-Charge (IIC)

**BUTCH WILSON** 

Additional Persons Participating in This Accident/Incident Investigation:

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