Boeing 757 slide loss on climbout from Seattle, October 16, 1997

Micro-summary: On rotation, an overwing slide detached and fell off.

Event Date: 1997-10-16 at 830 PDT

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

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

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NTSB ID: FTW98IA019

Aircraft Registration Number: N581UA

Occurrence Date: 10/16/1997

Most Critical Injury: None

Occurrence Type: Incident

Investigated By: NTSB

Location/Time

Nearest City/Place
SEATTLE
SEATTLE
State
WA
SEATTLE
State
WA
State

Aircraft Information Summary

Aircraft Manufacturer Model/Series Type of Aircraft
Boeing 757-222 Airplane

Sightseeing Flight: No Air Medical Transport Flight: No

Narrative

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

HISTORY OF FLIGHT

On October 16, 1997, between 0830 Pacific daylight time and 1127 mountain daylight time, a Boeing 757-222, N581UA, owned and operated by United Airlines, Inc., sustained minor damage when the left off-wing evacuation slide separated from the airplane during its flight from Seattle, Washington, to Denver, Colorado. There were no injuries to the airline transport-rated captain, airline transport-rated first officer, 6 flight attendants, and 188 passengers. Visual meteorological conditions prevailed, and an IFR flight plan had been filed. The airplane was being operated as Flight 724 in scheduled domestic passenger service under Title 14 CFR Part 121 when the incident occurred. The flight departed Seattle at 0830.

The first officer was flying the airplane. As the airplane was rotated for liftoff, the captain noticed that the EICAS (engine indication and crew alerting system) "EMERGENCY DOOR" light had illuminated. According to United's Boeing 757/767 Flight Manual, if pressurization is normal --- and it was --- the crew need not take further action. During the descent for landing, a flight attendant said she heard a loud noise from the left side of the airplane. The airplane landed uneventfully at Denver at 1127.

DAMAGE TO AIRCRAFT

Postincident inspection disclosed the left off-wing slide had separated from the airplane. The slide was never recovered. There was a 1-1/2 inch tear in the left inboard flap near the trailing edge, a 1-inch tear in the evacuation slide access door, a 9-inch horizontal tear in the honeycomb fillet panel, and a 20-inch tear in the fuselage skin between F.S. (fuselage station) 1420 and 1440. Repair costs were estimated at \$75,000.

AIRCRAFT INFORMATION

According to United Airlines, there had been a routine replacement of the left off-wing evacuation slide on the evening before the incident. One of two mechanics involved in replacing the slide was interviewed on November 4, 1997. The mechanic, a 12-year veteran with United, said this was the second time he had replaced the off-wing slide, the first time occurring some 10 years before. The replacement was made during the hours of darkness, using a flashlight and referencing Boeing 757 Maintenance Manuals 25-65-00 and 25-65-01. After installing the slide, he closed the panel and, following the instructions placarded on the maintenance access door, placed the actuator handle in the horizontal position. He said he had never received any training for installing the off-wing slide.

ADDITIONAL INFORMATION

NTSB ID: FTW98IA019

Occurrence Date: 10/16/1997

Occurrence Type: Incident

Narrative (Continued)

In a meeting with Boeing officials that same day, it was revealed that since the airplane entered service in November 1984, there had been four other incidents similar to that involving N581UA. The first incident also involved United Airlines and occurred on June 8, 1993, in Los Angeles California. The incident was investigated by NTSB's Southwest Regional Office (see LAX 93-I-A245). The second incident occurred on September 23, 1995, at Newark, New Jersey, and involved Continental Airlines. On rotation for liftoff, the EICAS illuminated. The flight continued to Houston, Texas. After landing, it was discovered that the right overwing slide had deployed and was hanging off the right wing. The third incident occurred on November 15, 1995, during a test flight at Everett, Washington. The airplane involved was scheduled to be delivered to Northwest Airlines. The last incident occurred on June 24, 1997, at Dallas-Fort Worth, Texas, and involved American Airlines. The Emergency Doors EICAS light illuminated shortly after takeoff. The airplane returned and landed uneventfully. American Airlines officials said the slide had hung in the slipstream for approximately 10 seconds before separating, causing a discernible airframe vibration.

As a result of these incidents, Boeing issued Service Bulletin (S.B.) 757-25-0182, dated October 10, 1996, and revised it on June 12, 1997. It calls for the replacement of the lockbase retainer and the bearing for the door latch tube, and relocating the door sensor to a forward position on the slide compartment door to enable a more positive indication that the slide compartment door is latched.

NTSB ID: FTW98IA019

Occurrence Date: 10/16/1997

AVIATION		Occurre	nce Type:	: Incident									
Landing Facility/Approach In	formation												
Airport Name	Air	rport ID:	Airport Elevat	tion	Run	way Used	Runwa	unway Length		Runwa	ay Width		
				Ft.	. MSL	0							
Runway Surface Type:													
Runway Surface Condition:													
Type Instrument Approach:													
VFR Approach/Landing:													
VI IV. IPP. 000													
Aircraft Information													
Aircraft Manufacturer			Model/ 757-2						Serial 2670	Serial Number			
Boeing			151-2						2010	1			
Airworthiness Certificate(s): Trans	port												
Landing Gear Type: Retractable	- Tricycle												
Homebuilt Aircraft? No	Number of Seats: 2						230000	LBS	Numbe	er of En	gines:	2	
Engine Type: Turbo Fan					Engine Manufacturer: P&W				Model/Series: PW-2037(M)			Rated Power: 38200 LBS	
- Aircraft Inspection Information													
Type of Last Inspection		D:	Date of Last Inspection Tim			ime Since Last Inspection				Airfram	ne Tota	al Time	
Continuous Airworthiness		C	09/1997				258 Hours				155	21 Hours	
- Emergency Locator Transmitter (ELT) Information												
ELT Installed? No ELT Operated? ELT Aided in Locating Accident Site?													
Owner/Operator Information													
Registered Aircraft Owner			Street A	Address	GONOI	IIN R	D						
UNITED AIRLINES, INC. 1200 ALGONQUIN RD. City State Zip Cod									Zip Code				
	<u> </u>								60007				
Operator of Aircraft			Street A		Rea'd	Aircra	aft Owner						
Same as Reg'd Aircraft Owner			Same as Reg'd Aircraft Owner City						State	•	Zip Code		
	Operator Designator Code: UALA												
Operator Does Business As:						Ot	perator Desigi	nator Co	de: UA	LA			
 Type of U.S. Certificate(s) Held: Air Carrier Operating Certificate(s): 	Flag Carrier/Don												
All Carrier Operating Certificate(s).	Tiag Gamen Dom	leano											
Operating Certificate:				Operator C	Certificat	e:							
Regulation Flight Conducted Under	r: Part 121: Air Ca	ırrier											
Type of Flight Operation Conducted	d: Scheduled; Dor	nestic; Pa	assenger	r Only									
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NTSB ID: FTW98IA019

Occurrence Date: 10/16/1997

TACTORI Gooding Gooding Control of the Control of t											
AVIATION Occurrence Ty					cident						
First Pilot Information											
Name	City			Sta	ite	Date of Birth	Age				
On File	On File			On	File	On File	56				
Sex: M Seat Occupied:	Left	Prin	cipal Profes	sion: Civilia	n Pilot		C	Certificat	te Numb	ber: On File	
Certificate(s): Airline Transport; Commercial; Flight Engineer											
Airplane Rating(s): Multi-engine Land; Single-engine Land											
Rotorcraft/Glider/LTA: None											
Instrument Rating(s): Airpl	ane										
Instructor Rating(s): None											
Type Rating/Endorsement for	or Accident/In	cident Aircraf	^{t?} Yes			Current I	Biennial Fligh	t Reviev	w?		
Medical Cert.: Class 1	Medica	l Cert. Status	: Valid Med	dicalno wa	aivers/lin	า.	Date of	Last Me	edical E	xam: 09/1997	
<u>I</u>											
- Flight Time Matrix	Matrix All A/C This Make Airplane Airplane and Model Single Engine Mult-Engir				Night	Actua	Instrument Actual Simulated		Rotorcraft	Glider	Lighter Than Air
Total Time	Total Time 20997 4346										
Pilot In Command(PIC)	Pilot In Command(PIC) 4346										
Instructor											
Last 90 Days		238									
Last 30 Days		76									
Last 24 Hours											
Seatbelt Used? Yes Shoulder Harness Used? Yes Toxicology Performed? No Second Pilot? Yes											
Flight Plan/Itinerary											
Type of Flight Plan Filed: IFI	R										
Departure Point State Airport Identifier Departure Time Time Zone								Time Zone			
Same as Accident/Incident Location							SEA	0830			PDT
Destination State Airport Identifier											
DENVER						CO DEN					
Type of Clearance: IFR											
Type of Airspace: Class I	В										
Weather Information											
Source of Briefing: Compa	any										
Method of Briefing:											
			FACTUAL	REPORT	- AVIA	ΓΙΟΝ					Page 3

NTSB ID: FTW98IA019

Occurrence Date: 10/16/1997

Occurrence Type: Incident

	ETYBOR		Occ	currence i	ype: Ir	ncident							
Weather	Information												
WOF ID	Observation Time	Time Zone	WOF	Elevation	_ \	WOF Dis	OF Distance From Accident Site				Direction Fron	n Accident Site)
SEA	0856	PDT		129 Ft. MS	SL				0 NM		0 Deg. Mag.		
Sky/Lowes	et Cloud Condition: Scatt	ered		16000 Ft. A					Condition o				
Lowest Ce	iling: None			0 Ft. AGL			lity:	6	SM	Alti	meter:	30.00	"Hg
Temperatu	ıre: 11 °C [1 °C V	Vind Di	irection:				Dei	nsity Altitude:	0	Ft.		
Wind Spee	W	Weather Condtions at Accident Site: Visual Conditions											
Visibility (R	Visibility (RVR): 0 Ft. Visibility (RVV) 0 SM Intensity of Precipitation							ation: I	Unknown				
Restriction	s to Visibility: None												
Type of Pre	ecipitation: None												
Accident	Information												
Aircraft Dar	mage: Minor	raft Fire: N	lone				Aircraft Exp	losio	n None				
Classificati	on: U.S. Registered/U.	.S. Soil											
- Injury Sur	mmary Matrix	Fatal	Serious	Minor	No	one	TOTAL						
First Pil	lot					1	1						
Second	d Pilot					1	1						
Student	t Pilot												
Flight Ir	nstructor												
Check F	Pilot												
Flight E	Engineer												
Cabin F	Attendants					6	6						
Other C	Crew												
Passen	igers					188	188						
- TOTAL A	ABOARD -					196	196						
Other G	Ground	0	0		0		0						
- GRAND	O TOTAL -	0	0		0	196	196						
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National Transportation Safety Board

FACTUAL REPORT AVIATION NTSB ID: FTW98IA019

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Investigator-In-Charge (IIC)

ARNOLD W. SCOTT

Additional Persons Participating in This Accident/Incident Investigation:

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