Ground collision between a Boeing 737-322 and Boeing 767, San Francisco, June 6, 1996

Micro-summary: This Boeing 737-322 collided with a Boeing 767 during pushback.

Event Date: 1996-06-06 at 2205 PDT

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

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

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- 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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National Transportation Safety Board NTSB ID: LAX96LA222A Aircraft Registration Number: N371UA FACTUAL REPORT Occurrence Date: 06/06/1996 Most Critical Injury: None AVIATION Occurrence Type: Accident Investigated By: NTSB Location/Time Nearest City/Place State Zip Code Local Time Time Zone 2205 PDT SAN FRANCISCO CA 94128 Distance From Landing Facility: Direction From Airport: Airport Proximity: On Airport Aircraft Information Summary Aircraft Manufacturer Model/Series Type of Aircraft Boeing 737-322 Airplane Sightseeing Flight: No Air Medical Transport Flight: No

Narrative

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

On June 6, 1996, at 2205 hours Pacific daylight time, a United Airlines Boeing 737-322, N371UA, operating as scheduled passenger flight number 2546 to Seattle, Washington, collided on the ground with an American Airlines Boeing 767-223, N335AA, operating as scheduled passenger flight number 18 to New York City, New York. The collision occurred between the "E" and "F" concourses in an alleyway at the San Francisco International Airport, San Francisco, California. At the time, the United aircraft was under tug control while being pushed back from gate number 77, and the American aircraft was commencing to taxi for takeoff from the same alleyway following its uneventful pushback from gate number 63. During the aircraft tail-to-tail collision, the United aircraft was substantially damaged, and neither its 5 crew members nor 50 passengers were injured. The American aircraft received minor damage, and neither its 11 crew members nor 154 passengers were injured.

The captains in both aircraft had received clearances for their respective pushbacks, and the American aircraft was pushed back first. According to American, wing walkers had been used during the pushback operation, and its aircraft was positioned at its customary location in the alleyway. Thereafter, the captain started both engines. The push tractor disconnected from the aircraft, and along with the wing walkers proceeded back to the gate. Upon arrival at the gate one of the wing walkers observed that the aircraft had just been impacted by a United aircraft.

According to a representative from United Airlines, no wing walkers were used during its pushback operation. Also, it was United's policy that prior to pushing the accident aircraft into the alleyway, it was the tug driver's responsibility to ensure that adequate clearance existed from other aircraft.

The United tug driver reported, in pertinent part, that after initiating the pushback she slowed her speed to allow for the passage of a food service truck. Then she continued with the pushback operation and looked for the lead-in line where the aircraft was to be positioned in the alleyway. The tug driver further reported that approaching the lead-in line the aircraft "lunged toward me abruptly." The tug driver asked the pilot what was wrong and whether he applied brakes. The pilot, who described the aircraft as having experienced a "shudder," responded that he had not applied the brakes.

The tug driver indicated that she initially believed something might be wrong with the tug; however, she proceeded with another pushback effort. After restarting the pushback she observed for the first time the landing gear of a Boeing 767 which was already located in the alleyway. The Boeing 767 was located directly behind the Boeing 737. It was then that she realized a collision had occurred.

In September of 1995, United Airlines management was aware that aircraft utilizing its gate number 77 did not have the minimum 25-foot aircraft wing tip clearance in the alleyway as required by the City of San Francisco. City personnel agreed to allow United to paint temporary aircraft lead-in

wing walkers."

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Narrative		(Conti	nued)														
lines a	at	the	gate	and	to	allow	Boeing	737	aircraft	gate	usage	provided	United	"guarantee	the	use	of

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AVIATION	Occurrence Type: Accident													
Landing Facility/Approach In	formation	1												
Airport Name			Airport II	ID:	Airport Elevat	tion	Run	way Used	Runwa	y Lengt	h	Runv	vay Width	
SAN FRANCISCO INTL	SFO		11 Ft.	MSL	0									
Runway Surface Type:														
Runway Surface Condition:														
Type Instrument Approach:														
VFR Approach/Landing:														
Aircraft Information														
Aircraft Manufacturer Boeing				lodel/S '37-32						Serial 2454	Number 0			
Airworthiness Certificate(s): Trans	sport													
Landing Gear Type: Retractable	- Tricycle													
Homebuilt Aircraft? No	Number of Seats:	133	Cer	rtified	Max Gross W	130000	130000 LBS Numbe			er of Engines: 2				
Engine Type: Turbo Fan			Engine GE	Engine Manufacturer: Model/Series: CFM56-3-C1						Rated Power: 20000 LBS				
- Aircraft Inspection Information														
Type of Last Inspection	Date of	Date of Last Inspection Time Sir					ection	Airfrar	ne To	tal Time				
Continuous Airworthiness			10/199	10/1995					Но	ours		18	843 Hours	
- Emergency Locator Transmitter (ELT) Information													
ELT Installed?	ELT Operate	ed?				ELT	Aided i	n Locating Ad	cident S	ite?				
Owner/Operator Information														
Registered Aircraft Owner			Stre	eet Ac	ddress RODNE	 / SQ	. N. CO	RP. TRUST	ADM.	DM.				
WILMINGTON TRUST CO. TR	RUSTEE		City	City								e	Zip Code 19890	
			Stre	WILMINGTON DE 19890 Street Address									19090	
Operator of Aircraft					P.O. BO	X 661	100							
UNITED AIRLINES, INC.	City ELK GROVE							Stat IL	e	Zip Code 60666				
Operator Does Business As: Operator Designation							nator Co	de: UA	LA					
- Type of U.S. Certificate(s) Held:														
Air Carrier Operating Certificate(s)	: Flag Carrier/Dom	nestic												
Operating Certificate: Operator Certificate:														
Regulation Flight Conducted Under: Part 121: Air Carrier														
Type of Flight Operation Conducted	d: Scheduled; Dor	nestic;	; Passer	nger	Only									
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AVIATION	Occurrence Type: Accident											
First Pilot Information												
Name City State Date of Birth Age										Age		
On File	On Fil	le					File	On File	47			
Sex: M Seat Occupied: Left	Prin	ncipal Profes	sion: Civilia	ın Pilot				Ce	rtificat	te Num	ber: On File	
Certificate(s): Airline Transport; Flight Instructor; Flight Engineer												
Airplane Rating(s): Multi-engine Land; Single-engine Land; Single-engine Sea												
Rotorcraft/Glider/LTA: None												
Instrument Rating(s): Airplane												
Instructor Rating(s): Airplane Single-engine; Instrument Airplane												
Type Rating/Endorsement for Accident/Incident	Aircra	ft? Yes			С	urrent B	iennia	al Flight F	Reviev	v?		
Medical Cert.: Class 1 Medical Cert	Status	S: Valid Med	dicalno wa	aivers/l	im.			Date of La	ast Me	edical E	Exam: 01/1996	
·							•					
- Flight Time Matrix All A/C This M and Me		Airplane Single Engine	Airplane Mult-Engine	Nigl	Night A		Instrument simulated			Rotorcraft	Glider	Lighter Than Air
Total Time 14469	14469 2660											
Pilot In Command(PIC)	2660						_		\perp			
Instructor									\perp			
Last 90 Days	190											
Last 30 Days Last 24 Hours	64						\dashv		+			
	7	Used? Yes		<u> </u>	Tovice	l ology Pe	rforme	ad2 Na		Is	econd Pilot? Ye	<u> </u>
Sealbeit Oseu: 165	arriess	Useu: 1es			TOXICO	ology i e	11011116	-u: 110			econd i not: 16	;5
Flight Plan/Itinerary												
Type of Flight Plan Filed: IFR												
Departure Point				Т	State		Airnor	t Identifie		Dena	rture Time	Time Zone
Same as Accident/Incident Location					Otato		Airport Identifier SFO			2205		PDT
Destination					State		Airport Identifier					
SEATTLE	WA		Airport Identifier SEA									
Type of Clearance: IFR												
Type of Airspace: Class D												
Weather Information												
Source of Briefing: Company												
Method of Briefing:				_		_						
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	ETYBOR		Uco	Occurrence Type: Accident										
Weather Information														
WOF ID	Observation Time	Time Zone	WOF	Elevation		WOF Di	F Distance From Accident Site				Direction From	Accident Site	Э	
	0000			0 Ft. M	SL				0 NM	0 Deg. Mag.			Mag.	
Sky/Lowes	st Cloud Condition: Clea	ır	•				0 Ft. AG	L	Condition of Light: Night/Bright					
Lowest Ce	iling: None			0 Ft. AG	GL.	Visibi	lity:	15	SM Altimeter:			29.00	"Hg	
Temperatu	ure: 14 °C	Dew Point:		8 °C \	Wind E	Direction:	280			Dei	nsity Altitude:		Ft.	
Wind Spee	ed: 12	Gusts:		Weather Condtions at Accident Site: Visua							itions			
Visibility (R	RVR): 0 Ft.	Visibility	(RVV)	0 8	SM	Intensity	of Precipita	ation: I	Unknown					
Restriction	ns to Visibility: None													
Type of Pre	ecipitation: None													
Accident Information														
Aircraft Dar	mage: Substantial		Airc	raft Fire: N	None				Aircraft Exp	losio	n None			
Classificati	ion: U.S. Registered/L	J.S. Soil												
- Injury Su	mmary Matrix	Fatal	Serious	Minor	1	None	TOTAL							
First Pi	ilot					1	1							
Second	d Pilot					1	1							
Studen	nt Pilot													
Flight I	nstructor													
Check	Pilot													
Flight E	Engineer													
Cabin /	Attendants					3	3							
Other C	Crew													
Passen	ngers				\top	50	50							
- TOTAL A	ABOARD -				\top	55	55							
Other G	Ground	0	0		0		0							
- GRANE	O TOTAL -	0	0		0	55	55							

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AVIATION	Occurrence Type: Accident										
Administrative Information											
Investigator-In-Charge (IIC)											
WAYNE POLLACK											
Additional Persons Participating in This Accident/Incident Investigation:											