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## Ground crewman injury, Airbus A320-231, August 8, 1998

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**Micro-summary:** This Airbus A320-231 ran over the leg of a ground crewman.

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**Event Date:** 1998-08-08 at 1455 MDT


**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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		NTSB ID: FTW98LA351		Aircraft Registration Number: N302ML	
		Occurrence Date: 08/08/1998		Most Critical Injury: Serious	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place DENVER	State CO	Zip Code 80239	Local Time 1455	Time Zone MDT	
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Airbus Industrie		Model/Series A-320-231		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 August 8, 1998, at 1455 mountain daylight time, an Airbus A320-231, operated by Prime Air as TransMeridian Airlines flight 1341, was not damaged when it taxied over the leg of a ground crewman during initial taxi following push back for departure at Denver International Airport, Denver, Colorado. The airline transport rated pilot and first officer, four flight attendants and 174 passengers were not injured; however, the ground crewman received serious injuries. The aircraft was being operated as a non-scheduled international passenger flight under Title 14 CFR Part 121, and visual meteorological conditions prevailed. An IFR flight plan was filed for the flight to Cancun, Mexico.</p> <p>According to the captain, after the aircraft was boarded, they experienced an APU failure, which required starting engine #2 at the gate prior to push back. After starting the #2 engine, the aircraft was pushed back from the gate and the flight crew started the #1 engine. They set the parking brake while at 50% power (N2), and notified the ground crew that they were cleared to disconnect the tug from the aircraft, to which they acknowledged. No further communications were held between the flight and ground crew following the ground crewman's instructions to the flight crew to set the parking brake.</p> <p>The flight crew received a clearance to taxi by Ramp Control and recalled that the area appeared clear. Immediately after beginning to taxi, the captain "felt something wrong with the aircraft." The first officer stated that his "vision was inside the cockpit" when he "heard a crunching or rubbing sound" immediately after beginning to taxi. The first officer looked outside the cockpit and did not see the tug or any ground crewman. The flight crew set the parking brake, and the tug driver announced to them over the intercom that they had just injured someone from the ground crew.</p> <p>In a statement following the accident, the injured ground crewman, Trenton Starry, stated that after removing ground power per the captain's request, the push back was initiated. Upon entering the service road, he advised the captain that they were clear to start the #1 engine and to set the brakes, to which the captain acknowledged. The captain then cleared him to disconnect the tow bar from the aircraft. When he went to disconnect the tow bar, the connection to the aircraft was jammed. He disconnected the tow bar from the tug, and went back to the aircraft's nose gear with the intention of releasing the tow bar from the airplane. The next thing he remembered was the aircraft "rolling over [his] legs." According to him, at no time following his braking instructions to the flight crew did he give them a signal that they were cleared to initiate taxi.</p> <p>The operator of the push back stated that he observed Mr. Starry give the captain the signal to set the brakes and then attempt to release the tow bar. The tow bar was jammed, so the driver put the tug in reverse to ease tension. Once the tow bar was released from the vehicle, he observed Mr. Starry approach the aircraft to remove the tow bar from the airplane. He noticed the aircraft begin to move, and the nose gear then rolled over Mr. Starry's legs. The tug operator recalled</p>					
FACTUAL REPORT - AVIATION					
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 <p>National Transportation Safety Board <b>FACTUAL REPORT</b> AVIATION</p>	NTSB ID: FTW98LA351
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## Narrative (Continued)

borrowing Mr. Starry's headsets to notify the crew of the accident. According to cockpit voice transcripts, the tug operator said to the crew, "You just ran over my guy down here," to which one of the crew members replied, "I apologize, I thought we were clear."

According to several witnesses, the aircraft traveled approximately 8 feet before stopping. The tow bar was still attached to the aircraft and the tug was still directly in front of the aircraft immediately following the accident.

This was a contract operation with a weekly frequency. According to the "Pushback/Headset Communications Procedures" outlined by Integrated Airline Services (the ramp contractor), once the tow bar is disconnected from the nose of the aircraft, the tug is to be "backed clear and in view of the flight crew." The ground crew is then instructed to "advise flight 'you are clear to start #2.'" The ground crewmember is instructed to continue wearing the headsets until both engines are operating, and until the flight crew has advised that they have "2 good engine starts," and that it is "ok to disconnect headset." TransMeridian Airlines' "A-320 Aircraft Operating Manual" states that "When ready to taxi, obtain 'all clear' signal and salute ground crew and then contact ground control for taxi clearance." Neither the airline nor the ramp contractor's pushback procedures provide instructions for communications should there be a problem with the tow bar disconnect process.

 <b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b>		NTSB ID: FTW98LA351				
		Occurrence Date: 08/08/1998				
		Occurrence Type: Accident				
<b>Landing Facility/Approach Information</b>						
Airport Name DENVER INTERNATIONAL		Airport ID: DEN	Airport Elevation 5431 Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:						
Runway Surface Condition:						
Type Instrument Approach: NONE						
VFR Approach/Landing: None						
<b>Aircraft Information</b>						
Aircraft Manufacturer Airbus Industrie		Model/Series A-320-231		Serial Number 338		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 180	Certified Max Gross Wt. 166447 LBS		Number of Engines: 2	
Engine Type: Turbo Fan		Engine Manufacturer: Int'l Aero En		Model/Series: V2500-A1	Rated Power: 24800 LBS	
- Aircraft Inspection Information						
Type of Last Inspection Continuous Airworthiness		Date of Last Inspection 07/1998	Time Since Last Inspection 142 Hours		Airframe Total Time 14766 Hours	
- Emergency Locator Transmitter (ELT) Information						
ELT Installed? Yes		ELT Operated? No		ELT Aided in Locating Accident Site?		
<b>Owner/Operator Information</b>						
Registered Aircraft Owner ORIX LEASING		Street Address SUITE 110A, QUORUM BAENWELL DR				
		City CAMBRIDGE CBS		State UK	Zip Code	
Operator of Aircraft PRIME AIR, INC.		Street Address 680 THORTON WAY				
		City LITHIA SPRINGS		State GA	Zip Code 30122	
Operator Does Business As: TRANSMERIDAN AIRLINES				Operator Designator Code: P9RA		
- Type of U.S. Certificate(s) Held:						
Air Carrier Operating Certificate(s): Flag Carrier/Domestic; Supplemental						
Operating Certificate:			Operator Certificate:			
Regulation Flight Conducted Under: Part 121: Air Carrier						
Type of Flight Operation Conducted: Non-scheduled; International; Passenger Only						
FACTUAL REPORT - AVIATION						

 <p><b>National Transportation Safety Board</b> <b>FACTUAL REPORT</b> <b>AVIATION</b></p>	NTSB ID: FTW98LA351
	Occurrence Date: 08/08/1998
	Occurrence Type: Accident

**First Pilot Information**

Name On File	City On File	State On File	Date of Birth On File	Age 58
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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; Flight Engineer; Military

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: 05/1998
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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	19597	1760	236	19361	5192	2478	663	8		
Pilot In Command(PIC)	5381	1760	72	5309	1307	772	298			
Instructor	974			974						
Last 90 Days	135	135		135	16	14				
Last 30 Days	41	41		41	12	5				
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 DEN	Departure Time 1500	Time Zone MDT
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Destination CANCUN	State MX	Airport Identifier CUN	
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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: FTW98LA351
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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
DEN	1553	MDT	5431 Ft. MSL	1 NM	360 Deg. Mag.
Sky/Lowest Cloud Condition: Scattered			9500 Ft. AGL	Condition of Light: Day	
Lowest Ceiling: None		0 Ft. AGL	Visibility: 10 SM	Altimeter: 30.00	"Hg
Temperature: 34 °C	Dew Point: 6 °C	Wind Direction: 20		Density Altitude: 8693	Ft.
Wind Speed: 10	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					
- 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				4	4
Other Crew					
Passengers				174	174
- TOTAL ABOARD -				180	180
Other Ground	0	1	0		1
- GRAND TOTAL -	0	1	0	180	181

National Transportation Safety Board

**FACTUAL REPORT**

**AVIATION**



NTSB ID: FTW98LA351

Occurrence Date: 08/08/1998

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

NORMAN F. WIEMEYER

Additional Persons Participating in This Accident/Incident Investigation:

WALTER L ALEXANDER  
CPR FSDO  
CASPER, WY 82604