
Fuel truck fire damages Boeing 747-259B, Miami, December 1, 1998

Micro-summary: A fuel truck caught fire, which damaged this Boeing 747-259B.


Event Date: 1998-12-01 at 0413 EST


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

Investigative Body's Web Site: <http://www.nts.gov/>

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		NTSB ID: MIA99FA038		Aircraft Registration Number: N621FF	
		Occurrence Date: 12/01/1998		Most Critical Injury: None	
		Occurrence Type: Accident		Investigated By: NTSB	
Location/Time					
Nearest City/Place MIAMI	State FL	Zip Code 33152	Local Time 0413	Time Zone EST	
Airport Proximity: On Airport		Distance From Landing Facility:		Direction From Airport:	
Aircraft Information Summary					
Aircraft Manufacturer Boeing		Model/Series 747-259B		Type of Aircraft 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					
<p>On December 1, 1998, about 0413 eastern standard time, a Boeing 747-259B, N621FF, registered to Aerousa Inc., and operated by Tower Air Inc, received fire damage to the right wing during refueling at Miami International Airport, Miami, Florida. Visual meteorological conditions prevailed at the time. An IFR flight plan was on file, and canceled for the 14 CFR Part 121 cargo flight. The airplane was substantially damaged. The flightcrew of four, and one refueler on the ground reported no injuries. The airplane was being loaded with cargo at the time, and part of the crew was in the flight deck.</p> <p>The first officer (FO) stated that the flight was originally scheduled to depart at 0100, "...but upon our arrival, no cargo had yet been loaded, and a delay of several hours was likely." The FO further said, "...both the engineer and I removed our shoes and uniform shirts and laid down in the bunk beds at the aft end of the upper deck. The aircraft APU was running for cooling. The next thing I knew was the engineer shaking me awake and saying we're on fire, get off the aircraft."</p> <p>The captain said he boarded the airplane about 0245, and, "...the cargo loading process was well on its way and I got busy with determining the fuel load as there was a change and we were scheduled to go directly to GIG [Rio De Janeiro]...I cleared a couple of flight plan items with our dispatch over the phone and devoted my attention to the INS initialization procedure...suddenly we heard the Ground Crew Call signal. I answered the call and I was told: The aircraft is on Fire !!!!!!! There was a lot of urgency in this call. Based on this information I ordered my crew to evacuate the aircraft. On my way out I pulled the APU Fire Handle, as this seemed to be the only logical conclusion of a fire without any indication of a fire in the cockpit, and placed the Battery Switch to the off position...on my way out, running down the stairs to the ramp, I saw a huge fire under the right wing of the aircraft. There were flames shooting from the fuel truck over the wing between the No. 3 and the No. 4 engines. These flames were so high and wide spread that I firmly believed that the entire airplane and fuel truck were going to explode any second...in my professional judgement it is a miracle that the fuel truck with 40,000 plus pounds and the airplane with 200,000 plus pounds of fuel on board at that time didn't explode..." All the flightcrew members exited the airplane out the L1, boarding door.</p> <p>According to the refueler, he had pumped 6,000 gallons of Jet "A" into the right wing and was standing on the deck over the pump, when he noticed "white to a light gray" smoke coming from the bottom of the truck's cab, and directly under him. He tried to disconnect the upper deck hoses from the airplane, but before he could, he saw flames coming from the same area of the truck. He jumped off the deck to the ground and attempted to put out the fire with a handheld extinguisher, without success. He then called his dispatcher, and the airport fire trucks were dispatched and extinguished the fire.</p>					
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	Occurrence Type: Accident

Narrative (Continued)

An interview with a Tower Air maintenance technical representative, revealed that he had come on duty at 2300. It was his responsibility to ensure that maintenance was done according to Tower Air's procedures. He stated that everything was okay with the airplane before the fire. He did a walk around the airplane, checked the logbook, checked to see that the two Signature fuel trucks, one under each wing were grounded, and he found that both trucks were grounded. He then went with another ground person and stood on the left side of the airplane, near the nose. He then said that he noticed "sparks" at the lower right hand side of the fuel truck, that was located under the right wing, near the ladder. He quickly ran to the fuel truck on the left of the airplane and told the fueler to stop fueling. The fueler stopped and pulled the truck away. By the time he got back to the nose of the airplane on the left side, he could see flames on the lower side of the truck under the right wing. He immediately beeped the flight deck crew who were in the cockpit by pressing the call switch (ringing bell), located on the nose gear, several times. They beeped back once, he realized they were probably not aware of the urgency, so he decided to run up the stairs and yelled "Fire." When he got back down the stairs the fuel truck and wing were on fire.

The accident occurred during the hours of darkness approximately 25 degrees, 47 minutes north, and 080 degrees, 17 minutes west.

PERSONNEL INFORMATION

Information on the pilot is contained in this report on page 3, under First Pilot Information.

METEOROLOGICAL INFORMATION

Meteorological information is contained in this report on page 3, under Weather Information.

MEDICAL AND PATHOLOGICAL INFORMATION

Toxicological tests were conducted on the refueler, reportedly by his company, and revealed, no ethanol or drugs detected in Blood.

WRECKAGE INFORMATION

The airplane's damage was concentrated mainly on the right wing. The leading edge of the right wing, between the numbers 3 and 4 engines, was burnt completely through. The leading edge flaps were melted as were numerous panels. The trailing edge flaps between engines 3 and 4, plus the underside skin was burnt. The number 3 engine had a large section of the strut and pylon burned away. The cowling on the number 4 engine was scored and burned. Examination of the fuel truck revealed that there was intense fire damage near the truck's transmission. A hole was found in the fuel line from the pump to the hose, directly above the area of the most intense fire damage. The truck was burned in the engine, passenger and pump areas. Severe fire damage, to the area between the cab and tank was found. The fuel piping found in this same area, had some severe damage. The fuel meter and other metal parts had been completely consumed by fire and melted. Fire damage to the engine was to the rear and on the top.

ADDITIONAL INFORMATION

The Metropolitan Dade County Fire Department Report, (an attachment to this report) stated the fire department conducted an investigation of the vehicle to determine the cause of the fire. According to the report the fire damage on the truck's engine, "...was possibly due to burning jet fuel from fueling operations at the time of the fire. The truck driver stated that he saw smoke and then fire from under the vehicle in the area between the cab and tank. The fire damage is

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Narrative (Continued)

consistent with the information. Due to severe damage to the area tank/cab, the source of the fuel leak could not be determined."

The airplane was released to Mr. Peter Russo, Director of Safety, Tower Air, on December 3, 1998. Mr. Russo signed the NTSB Form 6120.15, Wreckage Release form on December 18, 1998.

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Landing Facility/Approach Information						
Airport Name MIAMI INTERNATIONAL		Airport ID: MIA	Airport Elevation 11 Ft. MSL	Runway Used 0	Runway Length	Runway Width
Runway Surface Type:						
Runway Surface Condition:						
Type Instrument Approach: NONE						
VFR Approach/Landing: None						
Aircraft Information						
Aircraft Manufacturer Boeing		Model/Series 747-259B		Serial Number 21730		
Airworthiness Certificate(s): Transport						
Landing Gear Type: Retractable - Tricycle						
Homebuilt Aircraft? No		Number of Seats: 9	Certified Max Gross Wt. 833000 LBS		Number of Engines: 4	
Engine Type: Turbo Jet		Engine Manufacturer: P&W		Model/Series: JT90-7Q	Rated Power:	
- Aircraft Inspection Information						
Type of Last Inspection Unknown		Date of Last Inspection	Time Since Last Inspection Hours		Airframe Total Time Hours	
- Emergency Locator Transmitter (ELT) Information						
ELT Installed?		ELT Operated?		ELT Aided in Locating Accident Site?		
Owner/Operator Information						
Registered Aircraft Owner AEROUSA INC.		Street Address 83 WOOSTER HEIGHTS RD.				
		City DANBURY		State CT	Zip Code 06810	
Operator of Aircraft TOWER AIR		Street Address HANGAR 19, JFK INTERNATIONAL				
		City JAMAICA		State NY	Zip Code 11430	
Operator Does Business As: TOWER AIR				Operator Designator Code: TWRA		
- 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: Non-scheduled; International; Cargo						
FACTUAL REPORT - AVIATION						

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	Occurrence Type: Accident

First Pilot Information

Name On File	City On File	State On File	Date of Birth On File	Age 44
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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): Airplane Multi-engine; Airplane Single-engine

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--no waivers/lim.	Date of Last Medical Exam: 09/1998
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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	11300									
Pilot In Command(PIC)										
Instructor										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

Seatbelt Used?	Shoulder Harness Used?	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 MIA	Departure Time 0000	Time Zone
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Destination VIRACOPOS	State OF	Airport Identifier VCP	
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Type of Clearance: None

Type of Airspace:

Weather Information

Source of Briefing: Company

Method of Briefing:

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Weather Information

WOF ID	Observation Time	Time Zone	WOF Elevation	WOF Distance From Accident Site	Direction From Accident Site
MIA	0456	EDT	11 Ft. MSL	0 NM	0 Deg. Mag.

Sky/Lowest Cloud Condition: Scattered	7000 Ft. AGL	Condition of Light: Night/Dark
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Lowest Ceiling: None	0 Ft. AGL	Visibility: 10	SM	Altimeter: 30.00	"Hg
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Temperature: 27 °C	Dew Point: 17 °C	Wind Direction: 60	Density Altitude: Ft.
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Wind Speed: 14	Gusts:	Weather Conditions at Accident Site: Visual Conditions
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Visibility (RVR): 0 Ft.	Visibility (RVV) 0	SM	Intensity of Precipitation: Unknown
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Restrictions to Visibility: None

Type of Precipitation: None

Accident Information

Aircraft Damage: Substantial	Aircraft Fire: Ground	Aircraft Explosion: None
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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				1	1
Cabin Attendants					
Other Crew				1	1
Passengers					
- TOTAL ABOARD -				4	4
Other Ground	0	0	0		0
- GRAND TOTAL -	0	0	0	4	4

National Transportation Safety Board

FACTUAL REPORT

AVIATION



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Occurrence Date: 12/01/1998

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

ALAN J. YURMAN

Additional Persons Participating in This Accident/Incident Investigation:

GARY CRANFORD
MIAMI FSDO
MIAMI, FL 33166