Ground collision with fuel truck, Douglas DC-9-30, September 2, 1998

Micro-summary: This DC-9-30 struck a fuel truck.

Event Date: 1998-09-02 at 1805 EDT

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			NYC98LA17	7	Aircraft Registration Number: N927VJ				
FACTUAL REPORT	FACTUAL REPORT Occurrence			2/1998	Most Critical Injury: None				
AYIATION	(Occurrence	е Туре: Ассіс	lent	Investigated By: NTSB				
Location/Time									
Nearest City/Place	State	Zip	Code	Local Time	Time Zone				
PHILADELPHIA	PA	19 ⁻	133	1805	EDT				
Airport Proximity: On Airport	e From La	nding Facility:		Direction From Airport:					
Aircraft Information Summary									
Aircraft Manufacturer		Model/Series	3		Type of Aircraft				
Douglas		DC-9-30			Airplane				
Sightseeing Flight: No	Aiı	r Medical Transport Flight: No							

Narrative

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

On September 2, 1998, about 1805 eastern daylight time, a Douglas DC-9-30, N927VJ, operated by US Airways as flight 1722, struck a refueling vehicle at Philadelphia International Airport, Philadelphia, Pennsylvania. The airplane received substantial damage. In addition, the fuel truck was damaged. There were no injuries to the certificated airline transport captain, co-pilot, 3 flight attendants, 81 passengers and refueling truck driver. Visual meteorological conditions prevailed for the international passenger flight that originated in Ottawa, Ontario, Canada, at 1641. Flight 1722 was operated on an instrument flight rules (IFR) flight plan under 14 CFR Part 121.

Flight 1722 was about 1 hour 20 minutes behind schedule. The airplane landed on runway 27R, and exited the runway to the right at a high speed turnoff, K-4. The airplane continued with a right turn and passed through intersection OSCAR, headed straight toward the alleyway entrance between concourses A and B. Flight 1722 was cleared to change from tower frequency, to ground control, and then to US Airways ramp control. The flight was scheduled to arrive at gate B-8.

In a written statement, the captain stated:

"...I cleared the left side of the aircraft and proceeded toward the gate area. Just prior to entering the alleyway between Concourses A and B, my peripheral vision caught an object to our left. I immediately applied full brakes and immediately felt something contact the aircraft. I notified ramp control. Emergency equipment was called. It was determined that an evacuation was not necessary. There were no injuries to crew or passengers. Ultimately, the passengers were deplaned and transported to the terminal...."

The operator of the refueling truck had recently transferred experienced drivers, including the accident driver, from other airports to increase the work force at Philadelphia. The accident driver first received 2 days of on the job training, which included riding with another driver. He also passed his Philadelphia Airport, vehicle airport operations area test, after which he was released for work. The accident occurred on his third day of work. He reported that he had serviced an airplane on the west side of concourse A. As he approached the alleyway entrance between concourses A and B, he observed a US Airways B737 to his right just outside of the outer service road. He further stated:

"...I proceeded down the roadway [and] stopped before the stop [sign] next to 737. The 737 was to the right of the tanker. I look[ed] around and didn't see anything else coming or going. Seeing that the 737 wasn't going, I proceeded on looking to the left to see if any planes were taxiing out. I look[ed] to the right again, and I saw the DC-9 moving fast toward the tanker. I made a complete stop. When I saw the aircraft wasn't stopping I tried to kick it in reverse, but by the time I put it in reverse the aircraft [had] struck the lift on the right side of the truck."

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Narrative (Continued)

The investigation revealed that the outer service roadway crossed the alleyway entrance between concourses A and B. Printed on the roadway in white letters was, "STOP FOR AIRCRAFT." According to airport operations personnel, a driver would not be expected to stop if no aircraft were present. Vehicle drivers were instructed that airplanes have the right of way.

Additionally, the investigation revealed that the US Airways B737 parked adjacent to concourse A would have obstructed the fuel truck driver's view of the approaching DC-9, and the flight crew's view of the fuel truck, until the fuel truck had passed from behind the airplane. Visibility to the right was further restricted for the fuel truck driver by refueling hoses located to the right of the cab.

At the time of the accident, the fuel truck had driven 150 feet ahead of the STOP FOR AIRCRAFT sign. The front wheels of the fuel truck (empty weight 42,000 pounds) were displaced 2 feet laterally to the left. Skid marks were found from the left main landing gear of the DC-9, which measured 47 feet. The ramp was dry.

US Airways submitted calculation which indicated the airplane was traveling at $14.48\ \mathrm{knots}$ when the skid was initiated.

The fuel truck was a 10,000 gallon capacity truck, which was carrying about 5,000 gallons of Jet-A at the time of the accident.

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AVIATION		Occu	rrence Type	e: Ac	cident								
Landing Facility/Approach In	formation												
Airport Name			Airport ID:	Ai	rport Elevatio	n	Run	nway Used Runway Leng			:h	Runv	vay Width
PHILADELPHIA INTL ARPT			PHL		10 Ft. M	1SL	0						
Runway Surface Type:													
Runway Surface Condition: Dry													
Type Instrument Approach:													
VFR Approach/Landing:													
Aircraft Information													
Aircraft Manufacturer			Mode		ies						Numbe	r	
Douglas			DC-	9-30						4815	4		
Airworthiness Certificate(s): Trans	sport												
Landing Gear Type: Retractable	- Tricycle												
Homebuilt Aircraft? No	Number of Seats: 1	s: 106 Certified Max Gross Wt. 10						105000	0 LBS Numbe		er of Engines: 2		: 2
				Engine Manufacturer: Model/Series: JT8D-9A						Rated Power: 14500 LBS			
- Aircraft Inspection Information													
Type of Last Inspection			Date of Last Inspection Time Sin				nce Last Insp	ection	Airfram	ne To	tal Time		
Continuous Airworthiness			08/1998	08/1998					40 Hours				700 Hours
- Emergency Locator Transmitter (ELT) Information												
ELT Installed? No	ELT Operate	ed?			ı	ELT	Aided ii	n Locating Ac	cident S	ite?			
Owner/Operator Information													
Registered Aircraft Owner			Street	Addr		: PIT	TSBU	RGH ARPT					
USAIR			City	City								Э	Zip Code
			Ctus st	PITTSBURGH PA 15231 Street Address									
Operator of Aircraft			Street	Addre	ess Same as R	Reg'o	d Aircra	aft Owner					
Same as Reg'd Aircraft Owner				City							State	е	Zip Code
Operator Does Business As:	Operator Does Business As: Operator Designator Code: USAA												
- Type of U.S. Certificate(s) Held:													
Air Carrier Operating Certificate(s)	: Flag Carrier/Dom	nestic											
Operating Certificate:					Operator Cer	rtifica	ate:						
Regulation Flight Conducted Under: Part 121: Air Carrier													
Type of Flight Operation Conducted	d: Scheduled; Inte	rnation	nal; Passe	nger	/Cargo								
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AVIATION				Occurrence Type: Accident				7						
First Pilot	Information								•					
Name						City					State	D	ate of Birth	Age
On File						On File	ile					ile	On File	49
Sex: M	Seat Occupied:	Left	Prir	ncipal Profes	sion: Civilia	n Pilot				Cer	tificate	Numbe	er: On File	•
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): None														
Type Rating/Endorsement for Accident/Incident Aircraft? Yes Current Biennial Flight Review?														
Medical Ce	rt.: Class 1	Medica	al Cert. Status	s: Valid Me	dicalw/ wa	aivers/li	m.		Da	ate of La	st Med	ical Exa	am: 05/1998	
		I												
- Flight Tim	e Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Mult-Engine	Nigh	nt	Actual	Instrument Simulated		Rot	torcraft	Glider	Lighter Than Air
Total Time		19500	12400											
Pilot In Cor	nmand(PIC)													
Instructor														
Last 90 Day	/S		160								\perp			
Last 30 Day			48						_					
Last 24 Ho		<u> </u>	2			1						Τ.		
Seatbelt Us	sed? Yes	Shou	llder Harness	Used? Yes			Toxico	ology Pe	rforme	d? No		Sec	ond Pilot? Ye	S
Flight Pla	n/Itinerary													
	tht Plan Filed: IF	 R												
Departure F						Т	State	T	Airport Identifier		Departure Time		ure Time	Time Zone
OTTAWA	<u> </u>						CD		YOW			1641		EDT
Destination							State		Airport Identifier		r			
Same as Accident/Incident Location							PHL		ideritiile					
Type of Cle	arance: None					•					_			
Type of Air	space:													
Weather	Information													
Source of I	Briefing: Compa	any												
Method of	Briefing:													
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Occurrence Type: Accident

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Weather	Information												
WOF ID	Observation Time	Time Zone	WOF E	Elevation	V	NOF Dis	stance From	1 Accid	lent Site		Direction Fron	n Accident S	Site
PHL	1754	EDT		10 Ft. MS	L				0 NM		0 Deg. Mag.		
Sky/Lowes	et Cloud Condition: Scat	tered			-	3	3500 Ft. AG	iL	Condition of	f Ligh	nt: Day		
Lowest Ce	iling: Broken	ng: Broken 6000 Ft. AGL Visibility: 9 SM Altimeter:								meter:	29.00	"Hg	
Temperatu	ıre: 26 °C	Dew Point:	19	o ∘c W	ind Dir	rection:	190			Der	nsity Altitude:		Ft.
Wind Spee	ed: 10	Gusts:		W	eather	r Condti	ons at Accid	dent Si	te: Visual C	ond	itions		
Visibility (R	RVR): 0 Ft.	Visibility	(RVV)	0 SI	м І	Intensity	of Precipita	ation: (Jnknown				
Restriction	Restrictions to Visibility: None												
Type of Pre	Type of Precipitation: None												
Accident	Information												
Aircraft Dar	mage: Substantial		Aircr	aft Fire: N	one				Aircraft Expl	losio	n None		
Classificati	on: U.S. Registered/U	.S. Soil											
- Injury Su	mmary Matrix	Fatal	Serious	Minor	No	one	TOTAL						
First Pi	lot					1	1						
Second	d Pilot					1	1						
Studen	t Pilot												
Flight In	nstructor												
Check	Pilot												
Flight E	Engineer				1								
Cabin A	Attendants		Ī		1	3	3						
Other C	Crew												
Passen	igers					81	81						
- TOTAL A	ABOARD -					86	86						
Other G	Ground	0	0	C			0						
- GRAND	TOTAL -	0	0	C		86	86						

National Transportation Safety Board

FACTUAL REPORT AVIATION

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Occurrence Date: 09/02/1998

Occurrence Type: Accident

			nation

Investigator-In-Charge (IIC)

ROBERT L. HANCOCK

Additional Persons Participating in This Accident/Incident Investigation:

DARRELL MADIA FAA FSDO PHILADELPHIA, PA

CAPT. LORI CLINE US AIRWAYS, INC PITTSBURGH, PA