



# National Transportation Safety Board Aviation Accident Final Report

Location:	MIAMI, FL	Accident Number:	DCA96MA054
Date & Time:	05/11/1996, 1413 EDT	Registration:	N904VJ
Aircraft:	Douglas DC-9-32	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	110 Fatal
Flight Conducted Under:	Part 121: Air Carrier - Scheduled		

## Analysis

The airplane crashed into the Everglades about 10 minutes after takeoff from Miami International Airport. Safety issues discussed in the Board's report include minimization of the hazards posed by fires in class D cargo compartments; equipment, training, and procedures for addressing in-flight smoke and fire aboard air carrier airplanes; guidance for handling of chemical oxygen generators and other hazardous aircraft components; SabreTech's and ValuJet's procedures for handling company materials and hazardous materials; ValuJet's oversight of its contract heavy maintenance facilities; FAA's oversight of ValuJet and ValuJet's contract maintenance facilities; FAA's and the Research and Special Programs Administration's (RSPA) hazardous materials program and undeclared hazardous materials in the U.S. mail; and ValuJet's procedures for boarding and accounting for lap children. Safety recommendations concerning these issues were made to the FAA, RSPA, the U.S. Postal Service, and the Air Transport Association. (See NTSB Report AAR-97/06)

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: which resulted from a fire in the airplane's class D cargo compartment that was initiated by the actuation of one or more oxygen generators being improperly carried as cargo, were (1) the failure of SabreTech to properly prepare, package, and identify unexpended chemical oxygen generators before presenting them to ValuJet for carriage; (2) the failure of ValuJet to properly oversee its contract maintenance program to ensure compliance with maintenance, maintenance training, and hazardous materials requirements and practices; and (3) the failure of the Federal Aviation Administration (FAA) to require smoke detection and fire suppression systems in class D cargo compartments. Contributing to the accident was the failure of the FAA to adequately monitor ValuJet's heavy maintenance programs and responsibilities, including ValuJet's oversight of its contractors, and SabreTech's repair station certificate; the failure of the FAA to adequately respond to prior chemical oxygen generator fires with programs to address the potential hazards; and ValuJet's failure to ensure that both ValuJet and contract maintenance facility employees were aware of the carrier's 'no-carry' hazardous materials policy and had received appropriate hazardous materials training. (NTSB Report AAR-97/06)

## Findings

Occurrence #1: FIRE  
Phase of Operation: CLIMB

### Findings

1. (C) HAZARDOUS MATERIAL - IMPROPER
2. (C) PROCEDURE INADEQUATE - OTHER PERSON
3. (C) CARGO/BAGGAGE - IMPROPER
4. (C) MAINTENANCE - INADEQUATE - COMPANY/OPERATOR MANAGEMENT
5. (C) SMOKE DETECTOR(S) - NOT INSTALLED
6. (C) FIRE EXTINGUISHER, CARGO - NOT INSTALLED
7. (C) INSUFFICIENT STANDARDS/REQUIREMENTS - FAA(ORGANIZATION)
8. FUSELAGE, CARGO COMPARTMENT - FIRE

Occurrence #2: LOSS OF CONTROL - IN FLIGHT  
Phase of Operation: DESCENT

Occurrence #3: IN FLIGHT COLLISION WITH TERRAIN/WATER  
Phase of Operation: DESCENT - UNCONTROLLED

## Factual Information

Please refer to the National Transportation Safety Board Aircraft Accident Report, NTSB/AAR-97/06, DCA96MA054, for information about this accident.

### Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	35, Female
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last FAA Medical Exam:	04/12/1996
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	8928 hours (Total, all aircraft), 2116 hours (Total, this make and model), 188 hours (Last 90 days, all aircraft)		

### Co-Pilot Information

Certificate:	Airline Transport; Flight Engineer	Age:	52, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	
Medical Certification:	Class 1 With Waivers/Limitations	Last FAA Medical Exam:	03/07/1996
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:			

### Aircraft and Owner/Operator Information

Aircraft Make:	Douglas	Registration:	N904VJ
Model/Series:	DC-9-32 DC-9-32	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Transport	Serial Number:	47377
Landing Gear Type:	Retractable - Tricycle	Seats:	115
Date/Type of Last Inspection:	Continuous Airworthiness	Certified Max Gross Wt.:	108000 lbs
Time Since Last Inspection:		Engines:	2 Turbo Fan
Airframe Total Time:	2864 Hours	Engine Manufacturer:	P&W
ELT:	Not installed	Engine Model/Series:	JT8D-9A
Registered Owner:	VALUJET AIRLINES INC	Rated Power:	
Operator:	VALUJET AIRLINES INC	Operating Certificate(s) Held:	Flag carrier (121)
Operator Does Business As:		Operator Designator Code:	VJ6A

### Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	MIA, 8 ft msl	Distance from Accident Site:	18 Nautical Miles
Observation Time:	1350 EDT	Direction from Accident Site:	100°
Lowest Cloud Condition:	Scattered / 4000 ft agl	Visibility	12 Miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	8 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	100°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	29° C / 16° C
Precipitation and Obscuration:			
Departure Point:	MIAMI, FL (MIA)	Type of Flight Plan Filed:	IFR
Destination:	ATLANTA, GA (ATL)	Type of Clearance:	IFR
Departure Time:	1403 EDT	Type of Airspace:	Class B

### Airport Information

<b>Airport:</b>	MIAMI INTL (MIA)	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>		<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>	0	<b>IFR Approach:</b>	
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	5 Fatal	<b>Aircraft Damage:</b>	Destroyed
<b>Passenger Injuries:</b>	105 Fatal	<b>Aircraft Fire:</b>	In-Flight
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	110 Fatal	<b>Latitude, Longitude:</b>	

## Administrative Information

<b>Investigator In Charge (IIC):</b>	GREGORY A FEITH	<b>Report Date:</b>	03/31/1998
<b>Additional Participating Persons:</b>	JOE MANNO		
<b>Publish Date:</b>			
<b>Investigation Docket:</b>	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> .		

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