



National Transportation Safety Board Aviation Accident Final Report

Location:	MONUMENT VALLEY, UT	Accident Number:	DEN00FA085
Date & Time:	05/05/2000, 1347 MDT	Registration:	N241SA
Aircraft:	de Havilland DHC-6-300	Aircraft Damage:	Substantial
Defining Event:		Injuries:	17 None

Flight Conducted Under: Part 121: Air Carrier - Scheduled - Sightseeing

Analysis

The flight was departing runway 34 (4,000 ft. x 75 ft., dirt). According to the operator, the airplane encountered 'wind shear' from the right and then from the left. The takeoff was aborted. Directional control was lost and the airplane veered left and hit a dirt berm. Winds were reported to be from 210 degrees at 10 knots, with gusts to 20 knots.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot-in-command's failure to maintain directional control. A factor was wind shear.

Findings

Occurrence #1: LOSS OF CONTROL - ON GROUND/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

1. (C) DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - WINDSHEAR

Occurrence #2: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - ROLL/RUN

Findings

3. TERRAIN CONDITION - BERM

Factual Information

HISTORY OF FLIGHT

On May 5, 2000, at 1347 mountain daylight time, a Dehavilland DHC-6-300, N241SA, registered to and operated by Eagle Canyon Airlines, Inc., doing business as Scenic Airlines, Inc., of North Las Vegas, Nevada, was substantially damaged when it collided with terrain during takeoff roll at Monument Valley Airport, Monument Valley, Utah. There were no injuries to the airline transport (ATP) certificated captain and first officer, and 15 passengers. Visual meteorological conditions prevailed, and an IFR flight plan had been filed for the scheduled domestic passenger flight being conducted under Title 14 CFR Part 121. The flight was originating at the time of the accident.

Flight 304 was departing runway 34 (4,000 ft. x 75 ft., dirt), en route to Grand Canyon National Park Airport. According to the accident report submitted by the company's operations director, the aircraft "was hit by wind shear from the right and then left. [The] takeoff was aborted. The aircraft veered left and directional control was lost. The aircraft departed the runway to the left, hit a dirt berm, and came to rest 30 feet and 80 degrees left of runway 34."

METEOROLOGICAL INFORMATION

The following weather observations were made by the Cortez, Colorado, ASOS (Automated Surface Observing Station):

Wind, 210 degrees at 10 knots, gusts to 20 knots; visibility, greater than 10 statute miles; sky condition, clear; temperature, 27 degrees C. (81 degrees F.); dew point, 10 degrees C. (50 degrees F.); altimeter setting, 29.99 inches of mercury.

The captain of flight 304 reported the following weather conditions:

Sky condition, clear; visibility, 15 miles or better; temperature, 95 degrees F.; wind, variable between 210 and 250 degrees at 5 knots with gusts to 15 knots, no precipitation.

FLIGHT RECORDERS

The airplane was equipped with a cockpit voice recorder (CVR) only. It was sent to NTSB's CVR laboratory for examination and readout. According to the CVR laboratory's report, "The audio on the CVR tape did not offer any information that had not been obtained through other sources in the investigation. In agreement with the investigator-in-charge, a CVR group did not convene and a transcript was not prepared."

In a telephone interview, the CVR specialist stated that only the last 5 minutes of the tape pertained to the accident flight. The engines were started and all checklists were completed. The takeoff roll was begun and then an unidentified crew member said, "Oh!" Engine noise changes were recorded and the tape ended.

WRECKAGE AND IMPACT INFORMATION

Permission was given by the investigator-in-charge to move the airplane, that was partially blocking the runway, to the tiedown area next to the hangar. The on-scene investigation commenced and terminated on May 6, 2000.

Runway 34 is aligned on a magnetic heading of approximately 343 degrees. Using the run-up

area as the starting point, the right main landing gear exited the right side of the runway at the 720-foot mark on a magnetic heading of 347 degrees (all distances are approximate). Tire rim chatter marks made by the left main landing gear appeared in the middle of the runway at the 810-foot mark. There was a large gouge in the tarmac at the 861-foot mark. At the 939-foot mark, both tracks veered to the left to a magnetic heading of 310 degrees. The airplane departed the left side of the runway at the 1,014-foot mark, traveled 72 feet before crossing a tiedown cable, and traveled another 126 feet before coming to rest against a dirt berm. Total distance from the run-up threshold to the final resting point was 1,062 feet (see Wreckage Diagram).

The outboard leading edge of the right wing was wrinkled and the wing tip was crushed. The nose landing gear was sheared off, and the entire nose section forward of the instrument panel was buckled. The right main tire was deflated and off the rim. The rim was scored and gouged from contact with the asphalt runway.

ADDITIONAL DATA/INFORMATION

Other than the Federal Aviation Administration, there were no parties to the investigation. The wreckage was released to the insurance company on May 6, 2000.

Pilot Information

Certificate:	Airline Transport; Flight Instructor; Commercial	Age:	33, Male
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 Multi-engine; Airplane Single-engine; Instrument Airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Valid Medical--no waivers/lim.	Last Medical Exam:	01/03/2000
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	2025 hours (Total, all aircraft), 647 hours (Total, this make and model), 1485 hours (Pilot In Command, all aircraft), 273 hours (Last 90 days, all aircraft), 99 hours (Last 30 days, all aircraft), 7 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Manufacturer:	de Havilland	Registration:	N241SA
Model/Series:	DHC-6-300 DHC-6-300	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Utility	Serial Number:	556
Landing Gear Type:	Tricycle	Seats:	21
Date/Type of Last Inspection:	05/02/2000, Continuous Airworthiness	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:	11 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	39514 Hours	Engine Manufacturer:	P&W
ELT:	Installed, not activated	Engine Model/Series:	PT-6A-27
Registered Owner:	EAGLE CANYON AIRLINES, INC.	Rated Power:	620 hp
Operator:	EAGLE CANYON AIRLINES, INC.	Air Carrier Operating Certificate:	Flag carrier (121)
Operator Does Business As:	SCENIC AIRLINES, INC.	Operator Designator Code:	SCIA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	CEZ, 5914 ft msl	Observation Time:	1453 MDT
Distance from Accident Site:	113 Nautical Miles	Direction from Accident Site:	65°
Lowest Cloud Condition:	Clear / 0 ft agl	Temperature/Dew Point:	27° C / 10° C
Lowest Ceiling:	None / 0 ft agl	Visibility	10 Miles
Wind Speed/Gusts, Direction:	10 knots/ 20 knots, 210°	Visibility (RVR):	0 ft
Altimeter Setting:	29 inches Hg	Visibility (RVV):	0 Miles
Precipitation and Obscuration:			
Departure Point:	(71V)	Type of Flight Plan Filed:	IFR
Destination:	GRAND CANYON, AZ (GCN)	Type of Clearance:	None
Departure Time:	1345 MDT	Type of Airspace:	Class G

Airport Information

Airport:	MONUMENT VALLEY AIRPORT (71V)	Runway Surface Type:	Dirt
Airport Elevation:	5192 ft	Runway Surface Condition:	Dry
Runway Used:	34	IFR Approach:	
Runway Length/Width:	4000 ft / 75 ft	VFR Approach/Landing:	

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:	15 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	17 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	ARNOLD W SCOTT	Adopted Date:	04/06/2001
Additional Participating Persons:	WILLIAM T GIERHART		
Publish Date:			
Investigation Docket:	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 pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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