

Aviation Investigation Final Report

Location:	Boulder City, Nevada	Accident Number:	WPR20CA112
Date & Time:	March 6, 2020, 11:15 Local	Registration:	N72GC
Aircraft:	De Havilland DHC6	Aircraft Damage:	Substantial
Defining Event:	Loss of control on ground	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

An operator's pilot was conducting training for a newly hired pilot for a first officer position in the twinengine airplane. After accomplishing air work, the pilots returned to the airport to practice landings and takeoffs. According to both pilots, the first approach was normal, and the airplane touched down slightly right of the runway centerline. The trainee pilot stated that, after touchdown, the airplane began drifting further right and that he was unable to correct the deviation. The trainer pilot reported that, when directional control became unstable, he told the trainee, "I have the controls." The trainer pilot saw that the trainee pilot released his hands from the engine power levers and the yoke, but the airplane continued to deviate to the right, contrary to his control inputs and his addition of asymmetric power to the engines. The trainer pilot realized that, based on his inputs, the airplane should have returned to the centerline but that it did not and that it was behaving as if the trainee pilot was applying some braking. At that point, the trainer pilot again told the trainee pilot to release the controls, and he used the brakes, which he reported applied and released normally. Subsequently, the airplane exited the right side of the runway and impacted a ditch. The airplane sustained substantial damage to the right wing. The trainer pilot and the operator reported that there were no mechanical failures or malfunctions with the airplane that would have precluded normal operation. The trainer pilot reported that he believed the trainee pilot's feet were either on the brakes or interfered with his brake and/or rudder application attempts. The trainee pilot reported that he could not recall the position of his feet after he relinquished airplane control to the trainer pilot.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The trainee pilot's loss of directional control during landing and his subsequent unintentional control interference with the brakes and/or rudder during the trainer pilot's attempted remedial action, which resulted in a runway excursion and collision with a ditch.

Findings	
Aircraft	Directional control - Not attained/maintained
Personnel issues	Aircraft control - Student/instructed pilot
Personnel issues	Use of equip/system - Student/instructed pilot
Aircraft	Brake - Unintentional use/operation
Aircraft	Rudder control system - Unintentional use/operation
Environmental issues	Sloped/uneven terrain - Effect on operation

Factual Information

History of Flight

Landing-landing roll	Loss of control on ground (Defining event)
Landing-landing roll	Attempted remediation/recovery
Landing-landing roll	Runway excursion
Landing-landing roll	Collision with terr/obj (non-CFIT)

Flight instructor Information

Certificate:	Airline transport	Age:	55,Male
Airplane Rating(s):	Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	February 25, 2020
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 22, 2019
Flight Time:	23500 hours (Total, all aircraft), 20000 hours (Total, this make and model), 18500 hours (Pilot In Command, all aircraft), 75 hours (Last 90 days, all aircraft), 28 hours (Last 30 days, all aircraft), 3 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Commercial; Private	Age:	52,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	4-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	January 17, 2020
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	September 26, 2018
Flight Time:	583 hours (Total, all aircraft), 4 hours (Total, this make and model), 539 hours (Pilot In Command, all aircraft), 8 hours (Last 90 days, all aircraft), 6 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	De Havilland	Registration:	N72GC
Model/Series:	DHC6 300	Aircraft Category:	Airplane
Year of Manufacture:	1969	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	264
Landing Gear Type:	Tricycle	Seats:	21
Date/Type of Last Inspection:	September 25, 2019 Continuous airworthiness	Certified Max Gross Wt.:	12500 lbs
Time Since Last Inspection:		Engines:	2 Turbo prop
Airframe Total Time:	50964 Hrs as of last inspection	Engine Manufacturer:	
ELT:	Installed, not activated	Engine Model/Series:	
Registered Owner:	Monarch Enterprises Inc	Rated Power:	
Operator:	Grand Canyon Airlines	Operating Certificate(s) Held:	Commercial air tour (136)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	BVU,2200 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	11:15 Local	Direction from Accident Site:	
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	5 knots / None	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.07 inches Hg	Temperature/Dew Point:	21°C / -1°C
Precipitation and Obscuration:	No Obscuration; No Precipita	ition	
Departure Point:	Boulder City, NV (BVU)	Type of Flight Plan Filed:	Company VFR
Destination:	Boulder City, NV (BVU)	Type of Clearance:	None
Departure Time:	10:05 Local	Type of Airspace:	Class E

Airport Information

Airport:	Boulder City BVU	Runway Surface Type:	Asphalt
Airport Elevation:	2200 ft msl	Runway Surface Condition:	Dry
Runway Used:	27	IFR Approach:	None
Runway Length/Width:	4803 ft / 75 ft	VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	2 None	Aircraft Damage:	Substantial
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	2 None	Latitude, Longitude:	35.947223,-114.864723(est)

Administrative Information

Investigator In Charge (IIC):	Huhn, Michael
Additional Participating Persons:	
Original Publish Date:	August 3, 2020
Last Revision Date:	
Investigation Class:	<u>Class</u>
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=101095

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, "accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person" (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB's statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available here.