



AVIATION



HIGHWAY



MARINE



RAILROAD



PIPELINE

Aviation Investigation Final Report

Location:	San Diego, California	Accident Number:	GAA18CA319
Date & Time:	June 3, 2018, 14:15 Local	Registration:	N786SA
Aircraft:	Cessna 172	Aircraft Damage:	Substantial
Defining Event:	Ground collision	Injuries:	1 Minor, 2 None
Flight Conducted Under:	Part 91: General aviation - Instructional		

Analysis

The flight instructor, who was on the controls, reported that he and a student taxied for departure. Upon arrival at the departure end of the runway, there were four airplanes ahead of them in a run-up area. He added that the first airplane moved to the hold-short line and that, after he completed the engine run-up, they moved forward to the hold-short line behind the first airplane. The other three airplanes, which were biplanes, remained in the run-up area. After the departure of the first airplane, the instructor told the control tower they were ready for departure, and the tower controller replied to stand by. The tower controller then cleared the three biplanes, which were waiting in the run-up area for takeoff as a flight of three. The second biplane in the flight struck the instructor's airplane's right aileron as it taxied past.

The pilot of the tailwheel-equipped biplane reported that he was the second in the flight of three. He added that the flight had been holding in the run-up area at a 45° angle to complete their run-up checks when the tower controller cleared the flight for takeoff. He began to follow the lead airplane, and his airplane struck the airplane stopped at the hold-short line. He reported that he never saw the stopped airplane until after the impact.

The instructor's airplane sustained substantial damage to the right aileron.

In an interview with the Federal Aviation Administration inspector, the flight instructor reported that he was not aware that the three biplanes were part of a single flight awaiting takeoff clearance. He also reported that he had never flown tailwheel airplanes and was not aware of their limited forward visibility.

The flight instructor and biplane pilot reported that there were no preaccident mechanical failures or malfunctions with their respective airplanes that would have precluded normal operation.

Probable Cause and Findings

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

The biplane pilot's failure to see and avoid the stopped airplane.

Findings

Personnel issues	Monitoring other aircraft - Pilot of other aircraft
Personnel issues	Monitoring environment - Pilot of other aircraft
Environmental issues	Visibility - Effect on personnel

Factual Information

History of Flight

Taxi-into takeoff position	Ground collision (Defining event)
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Flight instructor Information

Certificate:	Commercial; Flight instructor	Age:	29, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane single-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	February 4, 2015
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	January 5, 2018
Flight Time:	(Estimated) 1006.7 hours (Total, all aircraft), 832.7 hours (Total, this make and model), 876.9 hours (Pilot In Command, all aircraft), 236.1 hours (Last 90 days, all aircraft), 60.7 hours (Last 30 days, all aircraft), 3.7 hours (Last 24 hours, all aircraft)		

Pilot Information

Certificate:	Private	Age:	28, Male
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 Without waivers/limitations	Last FAA Medical Exam:	December 12, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	May 8, 2018
Flight Time:	(Estimated) 206.6 hours (Total, all aircraft), 78.3 hours (Pilot In Command, all aircraft), 30.5 hours (Last 90 days, all aircraft), 3.2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N786SA
Model/Series:	172 S	Aircraft Category:	Airplane
Year of Manufacture:	2001	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	172S8830
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	May 16, 2018 100 hour	Certified Max Gross Wt.:	2550 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	9388.4 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	Installed, not activated	Engine Model/Series:	IO-360-L2A
Registered Owner:		Rated Power:	180 Horsepower
Operator:		Operating Certificate(s) Held:	Pilot school (141)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KMYF, 417 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	20:53 Local	Direction from Accident Site:	301°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.88 inches Hg	Temperature/Dew Point:	24°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	San Diego, CA (MYF)	Type of Flight Plan Filed:	VFR
Destination:	Phoenix, AZ (DVT)	Type of Clearance:	None
Departure Time:	14:15 Local	Type of Airspace:	Class D

Airport Information

Airport:	MONTGOMERY-GIBBS EXECUTIVE MYF	Runway Surface Type:	Asphalt
Airport Elevation:	427 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor, 1 None	Aircraft Damage:	Substantial
Passenger Injuries:	1 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor, 2 None	Latitude, Longitude:	32.812221,-117.131385(est)

Administrative Information

Investigator In Charge (IIC):	Benhoff, Kathryn
Additional Participating Persons:	David Lowther; FAA; San Diego, CA
Original Publish Date:	November 5, 2018
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=97388

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).



Aviation Investigation Final Report

Location:	San Diego, California	Accident Number:	GAA18CA319
Date & Time:	June 3, 2018, 14:15 Local	Registration:	N5762B
Aircraft:	Great Lakes 2T1A	Aircraft Damage:	None
Defining Event:	Ground collision	Injuries:	1 Minor
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The flight instructor, who was on the controls, reported that he and a student taxied for departure. Upon arrival at the departure end of the runway, there were four airplanes ahead of them in a run-up area. He added that the first airplane moved to the hold-short line and that, after he completed the engine run-up, they moved forward to the hold-short line behind the first airplane. The other three airplanes, which were biplanes, remained in the run-up area. After the departure of the first airplane, the instructor told the control tower they were ready for departure, and the tower controller replied to stand by. The tower controller then cleared the three biplanes, which were waiting in the run-up area for takeoff as a flight of three. The second biplane in the flight struck the instructor's airplane's right aileron as it taxied past.

The pilot of the tailwheel-equipped biplane reported that he was the second in the flight of three. He added that the flight had been holding in the run-up area at a 45° angle to complete their run-up checks when the tower controller cleared the flight for takeoff. He began to follow the lead airplane, and his airplane struck the airplane stopped at the hold-short line. He reported that he never saw the stopped airplane until after the impact.

The instructor's airplane sustained substantial damage to the right aileron.

In an interview with the Federal Aviation Administration inspector, the flight instructor reported that he was not aware that the three biplanes were part of a single flight awaiting takeoff clearance. He also reported that he had never flown tailwheel airplanes and was not aware of their limited forward visibility.

The flight instructor and biplane pilot reported that there were no preaccident mechanical failures or malfunctions with their respective airplanes that would have precluded normal operation.

Probable Cause and Findings

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

The biplane pilot's failure to see and avoid the stopped airplane.

Findings

Personnel issues	Monitoring environment - Pilot
Personnel issues	Monitoring other aircraft - Pilot

Factual Information

History of Flight

Taxi-into takeoff position	Ground collision
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Pilot Information

Certificate:	Airline transport; Commercial; Flight instructor	Age:	52, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Rear
Other Aircraft Rating(s):	None	Restraint Used:	5-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane multi-engine; Instrument airplane	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	June 14, 2017
Occupational Pilot:	No	Last Flight Review or Equivalent:	January 28, 2017
Flight Time:	(Estimated) 4471 hours (Total, all aircraft), 76 hours (Total, this make and model), 3821 hours (Pilot In Command, all aircraft), 12 hours (Last 90 days, all aircraft), 8 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Great Lakes	Registration:	N5762B
Model/Series:	2T1A 2	Aircraft Category:	Airplane
Year of Manufacture:	1980	Amateur Built:	
Airworthiness Certificate:	Aerobatic	Serial Number:	0833
Landing Gear Type:	Tailwheel	Seats:	2
Date/Type of Last Inspection:	May 4, 2018 Annual	Certified Max Gross Wt.:	1800 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	1421.3 Hrs as of last inspection	Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	
Registered Owner:		Rated Power:	180 Horsepower
Operator:	On file	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:	KMYF, 417 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	20:53 Local	Direction from Accident Site:	301°
Lowest Cloud Condition:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	10 knots /	Turbulence Type Forecast/Actual:	None / None
Wind Direction:	300°	Turbulence Severity Forecast/Actual:	N/A / N/A
Altimeter Setting:	29.88 inches Hg	Temperature/Dew Point:	24°C / 13°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	San Diego, CA (MYF)	Type of Flight Plan Filed:	None
Destination:		Type of Clearance:	None
Departure Time:	14:15 Local	Type of Airspace:	Class D

Airport Information

Airport:	MONTGOMERY-GIBBS EXECUTIVE MYF	Runway Surface Type:	Asphalt
Airport Elevation:	427 ft msl	Runway Surface Condition:	Dry
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	None
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 Minor	Latitude, Longitude:	32.812221, -117.131385(est)

Administrative Information

Investigator In Charge (IIC):	Benhoff, Kathryn
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