



Aviation Investigation Final Report

Location:	Fort Lauderdale, Florida	Accident Number:	GAA16CA454
Date & Time:	August 13, 2016, 12:30 Local	Registration:	N8166U
Aircraft:	Piper PA 34	Aircraft Damage:	Minor
Defining Event:	Ground collision	Injuries:	1 None
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

The pilot of the parked airplane reported that he and his co-pilot had just re-entered the airplane and were having a conversation when he felt the airplane shake and heard a loud noise. He further reported that he looked out of the right window and saw an aircraft with its propeller hitting the right wing. The airplane sustained substantial damage to the right wing.

The pilot of the other airplane reported that, after engine start and before taxi for takeoff, he was looking at his navigation communications and did not notice the airplane rolling forward. The airplane rolled forward and collided with the airplane in front of it. The pilot further reported that he was unaware of the airplane's forward movement and that he thought that the hand brake was fully engaged. The airplane sustained minor damage.

Neither pilot reported any preaccident mechanical malfunctions or failures with the 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 pilot's failure to ensure that the brake was fully engaged and his subsequent failure to notice that his airplane was rolling forward, which resulted in it hitting another airplane.

Findings

Personnel issues	Attention - Pilot
Personnel issues	Use of equip/system - Pilot
Aircraft	Brake - Not used/operated

Factual Information

History of Flight

Standing-engine(s) start-up	Ground collision (Defining event)
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Pilot Information

Certificate:	Private	Age:	74, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	3-point
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	June 13, 2016
Occupational Pilot:	No	Last Flight Review or Equivalent:	June 30, 2016
Flight Time:	(Estimated) 1985 hours (Total, all aircraft), 1445 hours (Total, this make and model), 9 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Piper	Registration:	N8166U
Model/Series:	PA 34 200T	Aircraft Category:	Airplane
Year of Manufacture:	1980	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	34-8070173
Landing Gear Type:	Retractable - Tricycle	Seats:	6
Date/Type of Last Inspection:	December 14, 2015 Annual	Certified Max Gross Wt.:	4570 lbs
Time Since Last Inspection:		Engines:	2 Reciprocating
Airframe Total Time:	3336 Hrs at time of accident	Engine Manufacturer:	CONT MOTOR
ELT:	C91 installed, not activated	Engine Model/Series:	TSIO-360 SER
Registered Owner:	ELI AIR CENTER INC.	Rated Power:	
Operator:	ELI AIR CENTER INC.	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KFXE,14 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:53 Local	Direction from Accident Site:	301°
Lowest Cloud Condition:	Scattered / 3300 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	12 knots / 20 knots	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	31°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Rock Sound (MYER)	Type of Flight Plan Filed:	VFR
Destination:	Fort Lauderdale, FL (FXE)	Type of Clearance:	Unknown
Departure Time:	11:00 Local	Type of Airspace:	Class D

Airport Information

Airport:	FORT LAUDERDALE EXECUTIVE FXE	Runway Surface Type:	
Airport Elevation:	13 ft msl	Runway Surface Condition:	Unknown
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

Wreckage and Impact Information

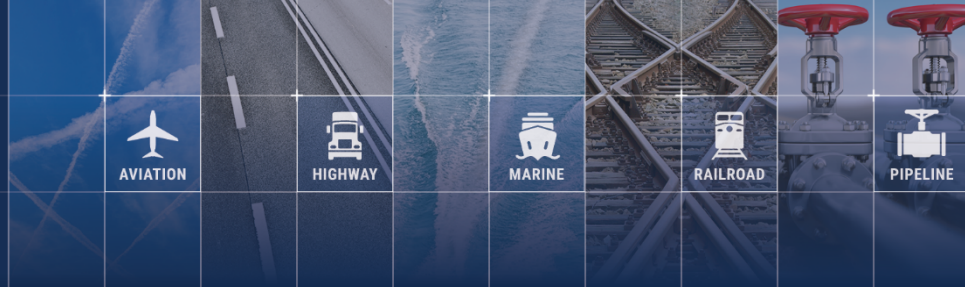
Crew Injuries:	1 None	Aircraft Damage:	Minor
Passenger Injuries:		Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	1 None	Latitude, Longitude:	26.193332,-80.164169(est)

Administrative Information

Investigator In Charge (IIC):	Vanover, Jackie
Additional Participating Persons:	Derrick D Mayberry; FAA; Fort Lauderdale, FL
Original Publish Date:	January 18, 2017
Last Revision Date:	
Investigation Class:	Class
Note:	This accident report documents the factual circumstances of this accident as described to the NTSB.
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=93911

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](#).



Aviation Investigation Final Report

Location:	Fort Lauderdale, Florida	Accident Number:	GAA16CA454
Date & Time:	August 13, 2016, 12:30 Local	Registration:	N70SW
Aircraft:	Cessna 500	Aircraft Damage:	Substantial
Defining Event:	Ground collision	Injuries:	2 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the parked airplane reported that he and his co-pilot had just re-entered the airplane and were having a conversation when he felt the airplane shake and heard a loud noise. He further reported that he looked out of the right window and saw an aircraft with its propeller hitting the right wing. The airplane sustained substantial damage to the right wing.

The pilot of the other airplane reported that, after engine start and before taxi for takeoff, he was looking at his navigation communications and did not notice the airplane rolling forward. The airplane rolled forward and collided with the airplane in front of it. The pilot further reported that he was unaware of the airplane's forward movement and that he thought that the hand brake was fully engaged. The airplane sustained minor damage.

Neither pilot reported any preaccident mechanical malfunctions or failures with the 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 other pilot's failure to ensure that the brake was fully engaged and his subsequent failure to notice that his airplane was rolling forward, which resulted in it hitting another airplane.

Findings

Personnel issues	Attention - Pilot of other aircraft
Aircraft	Brake - Not used/operated
Personnel issues	Use of equip/system - Pilot of other aircraft

Factual Information

History of Flight

Standing-engine(s) not oper	Ground collision
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Pilot Information

Certificate:	Airline transport	Age:	35, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	None
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:	November 9, 2015
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	February 25, 2016
Flight Time:	(Estimated) 8500 hours (Total, all aircraft), 120 hours (Total, this make and model), 8000 hours (Pilot In Command, all aircraft)		

Co-pilot Information

Certificate:	Commercial	Age:	23, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Unknown
Other Aircraft Rating(s):	None	Restraint Used:	None
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:	June 22, 2016
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	May 26, 2016
Flight Time:	(Estimated) 550 hours (Total, all aircraft), 15 hours (Total, this make and model)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N70SW
Model/Series:	500 Citation	Aircraft Category:	Airplane
Year of Manufacture:	1974	Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	500-0236
Landing Gear Type:	Retractable - Tricycle	Seats:	8
Date/Type of Last Inspection:	November 1, 2015 Continuous airworthiness	Certified Max Gross Wt.:	11500 lbs
Time Since Last Inspection:		Engines:	2 Turbo fan
Airframe Total Time:	9797.8 Hrs at time of accident	Engine Manufacturer:	Pratt & Whitney
ELT:	C91A installed, not activated	Engine Model/Series:	JT15D-1
Registered Owner:	On file	Rated Power:	2200 Lbs thrust
Operator:	On file	Operating Certificate(s) Held:	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:	KFXE, 14 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	15:53 Local	Direction from Accident Site:	301°
Lowest Cloud Condition:	Scattered / 3300 ft AGL	Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	12 knots / 20 knots	Turbulence Type Forecast/Actual:	/ None
Wind Direction:	110°	Turbulence Severity Forecast/Actual:	/ N/A
Altimeter Setting:	30.04 inches Hg	Temperature/Dew Point:	31°C / 22°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Nassau (MYNN)	Type of Flight Plan Filed:	VFR
Destination:	Fort Lauderdale, FL (FXE)	Type of Clearance:	VFR
Departure Time:	11:45 Local	Type of Airspace:	Class D

Airport Information

Airport:	FORT LAUDERDALE EXECUTIVE FXE	Runway Surface Type:	
Airport Elevation:	13 ft msl	Runway Surface Condition:	Unknown
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	None

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:	26.193332,-80.164169(est)

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Additional Participating Persons:	Derrick D Mayberry; FAA; Fort Lauderdale, FL
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