Aviation Investigation Final Report

Location:	Arvin, California	**Accident Number:**	GAA15CA303
Date & Time:	August 22, 2015, 15:00 Local	**Registration:**	N553T
Aircraft:	Mitsubishi MU 2B-25	**Aircraft Damage:**	Substantial
Defining Event:	Ground collision	**Injuries:**	1 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The pilot of the twin-engine, high-wing airplane, reported that while positioning the airplane for takeoff on a narrow private airstrip, the left wing impacted a tree, which resulted in substantial damage to the left wing.

According to the pilot there were no preimpact mechanical failures or malfunctions with the airframe or engine that would have precluded normal operation.

According to Federal Aviation Administration (FAA) records, the pilot held a private pilot certificate with airplane single engine land rating, but did not hold a multi-engine rating.

The Federal Aviation Administration has published the Airplane Flying Handbook FAA-H-8083-3A (2004). This handbook discusses multi-engine ground handling and states in part:

Good habits learned with single-engine airplanes are directly applicable to multiengine airplanes for preflight and engine start. Upon placing the airplane in motion to taxi, the new multiengine pilot will notice several differences, however. The most obvious is the increased wingspan and the need for even greater vigilance while taxiing in close quarters. Ground handling may seem somewhat ponderous and the multiengine airplane will not be as nimble as the typical two- or four-place single-engine airplane. As always, use care not to ride the brakes by keeping engine power to a minimum. One ground handling advantage of the multiengine airplane over single engine airplanes is the differential power capability. Turning with an assist from differential power minimizes both the need for brakes during turns and the turning radius.

Probable Cause and Findings

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

The pilot's failure to maintain clearance from trees while taxiing into position for takeoff on a narrow private airstrip, resulting in the left wing striking a tree.

Findings

Personnel issues	Monitoring environment - Pilot
Personnel issues	Qualification/certification - Pilot
Environmental issues	Tree(s) - Contributed to outcome

Factual Information

History of Flight

Taxi-into takeoff position	Ground collision (Defining event)

Pilot Information

Certificate:	Private	**Age:**	65,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	3-point
Instrument Rating(s):	None	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	None None	**Last FAA Medical Exam:**	March 4, 2002
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	
Flight Time:	(Estimated) 4000 hours (Total, all aircraft), 10 hours (Total, this make and model), 1990 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mitsubishi	**Registration:**	N553T
Model/Series:	MU 2B-25 26A	**Aircraft Category:**	Airplane
Year of Manufacture:	1974	**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	290
Landing Gear Type:	Retractable - Tricycle	**Seats:**	7
Date/Type of Last Inspection:	Annual	**Certified Max Gross Wt.:**	10460 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo prop
Airframe Total Time:	6520 Hrs	**Engine Manufacturer:**	Garrett
ELT:	Installed, not activated	**Engine Model/Series:**	TPE331-6
Registered Owner:	On file	**Rated Power:**	725 Horsepower
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:	KBFL,492 ft msl	**Distance from Accident Site:**	17 Nautical Miles
Observation Time:	21:54 Local	**Direction from Accident Site:**	338°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	8 knots /	**Turbulence Type Forecast/Actual:**	/ None
Wind Direction:	290°	**Turbulence Severity Forecast/Actual:**	/ N/A
Altimeter Setting:	29.82 inches Hg	**Temperature/Dew Point:**	35°C / 11°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Arvin, CA (7CA2)	**Type of Flight Plan Filed:**	Unknown
Destination:		**Type of Clearance:**	Unknown
Departure Time:	15:00 Local	**Type of Airspace:**	Class G

Airport Information

Airport:	PARADISE LAKES 7CA2	**Runway Surface Type:**	Asphalt
Airport Elevation:	340 ft msl	**Runway Surface Condition:**	Dry
Runway Used:	16	**IFR Approach:**	None
Runway Length/Width:	2700 ft / 60 ft	**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 None	**Aircraft Damage:**	Substantial
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 None	**Latitude, Longitude:**	35.175834,-118.922775(est)

Preventing Similar Accidents

Understanding Flight Experience (SA-040)

The Problem

Aircraft have different flight characteristics, performance, and systems. Pilots may have many hours of experience, but their experience specific to the aircraft make/model and/or equipment they are flying may be limited.

Although Federal Aviation Administration (FAA) regulations allow pilots to operate aircraft that are designated by a specific category and class, differences among different types of aircraft within the same category and class can be significant. Even if operating a specific type of aircraft is allowed by regulations, it does not mean the practice is safe.

What can you do?

- Obtain the necessary training from a flight instructor experienced in the aircraft that you plan to fly so that you understand the flight characteristics and emergency procedures for that aircraft. Meeting the minimum requirements does not mean that you are proficient.
- Obtain refresher training if you have not flown for a long period; long periods of no flying, even for high-time pilots, can have an adverse impact on your ability to respond to unusual situations and emergencies.
- Seek out a qualified test pilot to assist in flight testing homebuilt aircraft you are not familiar with.
- Seek out instruction for advanced avionics and systems. Identical make-and-model aircraft can have considerably different cockpit panels.

See https://www.ntsb.gov/Advocacy/safety-alerts/Documents/SA-040.pdf for additional resources.

The NTSB presents this information to prevent recurrence of similar accidents. Note that this should not be considered guidance from the regulator, nor does this supersede existing FAA Regulations (FARs).

Administrative Information

Investigator In Charge (IIC):	Vanover, Jackie
Additional Participating Persons:	Fritz C Bayer; FAA; Fresno, CA
Original Publish Date:	December 5, 2016
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.ntsb.gov/Docket?ProjectID=93677

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.