

NATIONAL TRANSPORTATION SAFETY BOARD
NTSB Form 6120.1
PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT

Email the pilot/operator aircraft accident/incident report to the investigator-in-charge of your accident/incident. If email is not available, mail the report per the instructions below.

If your accident/incident occurred in Maine, Vermont, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, Delaware, Virginia, West Virginia, Kentucky, Tennessee, North Carolina, South Carolina, Mississippi, Alabama, Georgia, Florida, the District of Columbia, Puerto Rico, or the US Virgin Islands, send the form to: NTSB, ERA, 45065 Riverside Parkway, Ashburn, VA 20147.

If your accident/incident occurred in Ohio, Michigan, Indiana, Wisconsin, Illinois, Minnesota, Iowa, Missouri, Arkansas, Louisiana, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Colorado, or New Mexico, send the form to: NTSB, CEN, 4760 Oakland Street, Suite 500, Denver, CO 80239.

If your accident/incident occurred in Montana, Wyoming, Idaho, Utah, Arizona, Nevada, Washington, Oregon, California, Hawaii, or the territories of Guam or American Samoa, send the form to: NTSB, WPR, 505 South 336th Street, Suite 540, Federal Way, WA 98003.

If your accident/incident occurred in Alaska, send the form to: NTSB, ANC, 222 West 7th Avenue, Room 216, Box 11, Anchorage, AK 99513.

Rules pertaining to notification of aircraft accidents and incidents, as well as overdue aircraft are found in 49 *Code of Federal Regulations* (CFR) Part 830 http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&tpl=/ecfrbrowse/Title49/49cfr830_main_02.tpl. These rules state the authority of the NTSB, define accidents, incidents, injuries, and other terms, and provide procedures for initial and immediate notification of accidents and incidents by aircraft pilots/operators.

A. APPLICABILITY

The pilot/operator of an aircraft shall send a report to the office listed above, based on accident/incident location; immediate notification is required by 49 CFR 830.5(a). **The report shall be filed within 10 days after an accident for which notification is required by Section 830.5, or after 7 days if an overdue aircraft is still missing.**

An aircraft accident, as defined in 49 CFR 830.2, is determined as an occurrence that involves a fatality or serious injury, or substantial damage to the aircraft. For occurrences that do not involve a fatality, the determination that the occurrence is an accident can be appealed by writing to the Director, Office of Aviation Safety, NTSB, 490 L'Enfant Plaza, S.W., Washington, D.C. 20594.

INSTRUCTIONS TO PILOTS/OPERATORS FOR COMPLETING THIS FORM

It is necessary that ALL questions on this report be answered completely and accurately.

If more space is needed, continue on a blank sheet of paper.

Nearest City/Place: Use the name of the nearest community in the state where the accident/incident occurred.

Date Time: Indicate the date and local time of the event. Be sure to indicate the time zone.

Phase of Operation: Indicate the phase of operation during which the accident/incident occurred.

Aircraft Information: Enter aircraft make and model information as indicated on the aircraft registration certificate, including series. If the involved aircraft is certified as "amateur-built," include the name of the producer of the kit or plans, unless an NTSB employee instructs otherwise.

Maximum Gross Weight: Enter the certificated maximum gross weight for the aircraft involved in the occurrence. This should be the same as the maximum gross weight indicated on the aircraft weight and balance documents.

Engine: Enter engine make and model information as indicated on the engine data plate.

The NTSB uses this form for aircraft accident prevention activities and for statistical purposes. NTSB regulations (49 CFR Part 830) require that **ALL** questions be answered completely and accurately. Completion of this form will take approximately 60 minutes. The NTSB does not guarantee the privacy of any information provided in this form. You need not complete this form unless it displays a valid OMB control number, in accordance with 5 C.F.R. § 1320.5(b), which applies to this collection of information.

B. DEFINITIONS

1. "Aircraft Accident" means an occurrence associated with the operation of an aircraft that takes place between the time any person boards the aircraft with the intention of flight and all such persons have disembarked, and in which any person suffers death, or serious injury, or in which the aircraft receives substantial damage. For purposes of this form, the definition of "aircraft accident" includes "unmanned aircraft accident," as defined at 49 CFR 830.2.

2. "Substantial Damage" means damage or failure that adversely affects the structural strength, performance or flight characteristics of the aircraft, and that would normally require major repair or replacement of the affected component. NOTE: Engine failure or damage limited to an engine if only one engine fails or is damaged, bent fairing or cowling, dented skin, small puncture holes in the skin or fabric, ground damage to rotor or propeller blades, and damage to landing gear, wheels, tires, flaps, engine accessories, brakes, or wing tips are not considered "substantial damage" for purposes of this report.

3. "Operator" means any person who causes or authorizes the operation of an aircraft, such as the owner, lessee, or bailee of an aircraft.

4. "Fatal Injury" means any injury that results in death within thirty (30) days of the accident.

5. "Serious Injury" means any injury that (1) requires hospitalization for more than 48 hours, commencing within 7 days from the date the injury was received; (2) results in a fracture of any bone (except simple fracture of fingers, toes, or nose); (3) causes severe hemorrhages, nerve, muscle, or tendon damage; (4) involves injury to any internal organ; or (5) involves second- or third-degree burns, or any burns affecting more than 5 percent of the body surface.

Type of Fire Extinguishing System: If a fire extinguishing system was used to fight an aircraft fire, specify the type(s) of extinguishing system(s) used. Examples include handheld extinguisher, engine fire bottle, cargo/baggage compartment fire suppression system, or airport emergency ground equipment.

Owner/Operator Information: Enter the owner information as shown on the registration certificate. Commercial operators, enter the operator information, including "doing business as" when applicable, as shown on the operator certificate.

Revenue Sightseeing Flight: Indicate whether the accident aircraft was conducting **revenue** sightseeing operations under 14 CFR Part 91 at the time of the accident.

Air Medical Flight: Indicate whether the accident flight was being conducted for the purpose of carrying medical personnel, patient(s), or organs.

Public Aircraft: Federal, state or local government flight operations such as official travel, law-enforcement, low-level observation, aerial application, firefighting, search and rescue, biological or geological resource management, or aeronautical research. Indicate whether the flight was conducted by the armed forces, federal, state, or local government.

Purpose of Flight: 14 CFR Parts 91, 103, 133, 136, and 137: Indicate the type of operation that was being conducted at the time of the occurrence using the following definitions:

AERIAL APPLICATION--Operations using an aircraft to perform aerial application or dispersion of any substance. Examples include agricultural, health, forestry, cloud seeding, firefighting, insect control, etc.

AERIAL OBSERVATION--These flights include aerial mapping/photography, patrol, search and rescue, hunting, highway traffic advisory, ranching, surveillance, oil and mineral exploration, criminal pursuit, fish spotting, etc.

AIR DROP--Aerial operations, other than aerial application, that are intended to release items in flight.

AIR RACE/SHOW--Includes any flight operations conducted as part of an organized air race or public demonstration.

BUSINESS--includes all personal flying without a paid professional crew for reasons associated with furthering a business, including transportation to and from business meetings or work. This does not include corporate/executive operations, air taxi, or commuter operations.

EXECUTIVE/CORPORATE--Company flying with a paid, professional crew.

FERRY--Non-revenue flight under a special flight or "ferry" permit. Refer to 14 CFR 21.197 for details of special flight permit issuance.

FLIGHT TEST--Flight for the purpose of investigating the flight characteristics of an aircraft/aircraft component or evaluating an applicant for a pilot certificate or rating.

INSTRUCTIONAL--Flying while under the supervision of a flight instructor or receiving air carrier training. Personal proficiency flight operations and personal flight reviews, as required by federal air regulations, are excluded.

OTHER WORK USE--Miscellaneous flight operations conducted for compensation or hire such as construction work (not 14 CFR Part 135 operation), parachuting, aerial advertising, towing gliders, etc.

PERSONAL--Flying for personal reasons (excludes business transportation) including pleasure or personal transportation. This also includes practice or proficiency flights performed under flight instructor supervision and not part of an approved flight training program.

POSITIONING--Non-revenue flight conducted for the primary purpose of relocating the aircraft. Examples include moving the aircraft to a maintenance facility or to load passengers or cargo etc.

UNKNOWN--Use only if the primary purpose of flight is not known.

Other Aircraft--Collision: For all accidents involving a collision with another aircraft, including parked aircraft, check "Collision with other aircraft" under Basic Information and complete this section indicating details about the OTHER aircraft involved in the collision.

Airport Information: Complete this section if the accident/incident occurred on approach, landing, takeoff, departure, or within 3 statute miles of an airport. Please refer to the FAA Airport/Facility Directory or other official source for airport information.

Airport Identifi : Provide the official 3 or 4 character airport identifier number.

Runway: Indicate the number of the runway used, including L, R, or C if applicable.

Runway/Landing Surface: Indicate the type of intended runway/landing surface (do not indicate surface conditions). If the surface type was mixed, check all that apply.

Condition of Runway/Landing Surface: Indicate the condition of the intended runway/landing surface. If multiple conditions existed at the time of the accident, check all that apply.

Weather Information at the Accident/Incident Site: Indicate the weather conditions reported at the accident/incident site at the time of occurrence. If no weather reporting was available for the accident/incident site, indicate the reported conditions at the nearest reporting site. Specify the weather reporting site identifier, the observation time, and distance from the accident/incident.

Sky/Lowest Cloud Condition: Indicate the height above ground level of the lowest cloud condition present at the time of the accident/incident and whether coverage was reported as few, scattered, broken or overcast. Also indicate the height above ground level and coverage of the lowest cloud ceiling present at the time of the accident/incident (reported as broken or overcast).

NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs: Describe all NOTAMs (distant (D) or Flight Data Center (FDC), if known), AIRMETs, SIGMETs, and PIREPs in effect near the accident/incident.

Flight Crewmember Information: Indicate the category that best describes the capacity served by this flight crewmember at the time of the accident. The designators "Flight Crewmember 1" and "Flight Crewmember 2" do not refer to a specific pilot position or responsibility. If more than one pilot is aboard, they may be entered in any order and their capacity entered as appropriate.

Degree of Injury: See Definitions on the top half of Page 1 of the instructions. Minor injury is not defined. If an injury does not meet the criteria for another injury category, select Minor.

Date of Last Flight Review or Equivalent: Enter the date of the most recent flight review, or equivalent, completed by this pilot. Refer to 14 CFR 61.56 for accepted equivalents.

Type Ratings: List all type ratings on the pilot certificate. If the pilot holds no type ratings indicate "none." If the pilot holds a pilot certificate other than student and was flying an aircraft requiring an endorsement, enter the type and date of any logbook endorsement(s) for that aircraft. See 14 CFR 61 for examples of required endorsements.

Student Endorsements: If the pilot holds a student pilot certificate, enter all solo endorsements and dates on the student pilot certificate.

Flight Time: Complete the flight time matrix. Solo flight time should be included as "Pilot-in-Command (PIC)" and all dual flight instruction given should be included as "Time as Instructor."

Additional Flight Crewmembers: Complete this section if there were more than two required flight crewmembers on the aircraft. This also includes a check airman performing official duties but does not include cabin crew. State the capacity served by each included crewmember at the time of the accident.

Passenger(s)/Other Personnel: Enter identification and injury severity information for all passengers, cabin crew, and other personnel involved in the accident. See Page 1 of the instructions for the official definition of injury levels.

Several questions throughout the form allow for multiple responses; when appropriate, choose all responses that apply.

These instructions only pertain to major issue areas covered by NTSB Form 6120.1 Pilot/Operator Aircraft Accident/Incident Report. For additional definitions of questions and responses, please refer to www.nts.gov.

**NATIONAL TRANSPORTATION SAFETY BOARD
PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT**

This form to be used for reporting civil and public aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location Nearest City/Place: <u>Hansen</u> State: <u>MA</u> ZIP: <u>02341</u> Country: <u>United States of America</u> Latitude: <u>42.0251389N</u> Longitude: <u>-70.8381111W</u> <i>(Enter in decimal degrees or degrees:minutes:seconds)</i>	Accident/Incident Date/Time Date: <u>12/23/2019</u> Local Time: <u>14:00</u> <i>mm/dd/yyyy</i> Time Zone: <u>Eastern</u>
Collision with Other Aircraft: <input type="radio"/> Midair <input type="radio"/> On-ground <input checked="" type="radio"/> None	

AIRCRAFT INFORMATION

Registration Number: <u>N5792U</u> Manufacturer: <u>Piper Aircraft</u> Model: <u>PA-28-140</u> Serial Number: <u>28-26618</u> Year of Manufacture: <u>1970</u> Amateur-Built: <input type="radio"/> Yes <input checked="" type="radio"/> No <i>If Yes:</i> <input type="radio"/> Kit/Plans <input type="radio"/> Original Design <i>Make:</i> _____	<input type="checkbox"/> IFR-Equipped and Certified <input type="checkbox"/> Commercial Space Flight <input type="checkbox"/> Unmanned Aircraft Maximum Gross Weight: _____ lbs Weight at Time of Accident/Incident: _____ lbs Number of Seats: <u>4</u> Flight Crew Seats: <u>2</u> Cabin Crew Seats: <u>0</u> Passenger Seats: <u>2</u> Number of Engines: <u>1</u>
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Category of Aircraft <input checked="" type="radio"/> Airplane <input type="radio"/> Balloon <input type="radio"/> Blimp/Dirigible <input type="radio"/> Glider <input type="radio"/> Gyroplane <input type="radio"/> Helicopter <input type="radio"/> Powered Lift <input type="radio"/> Rocket <input type="radio"/> Ultralight <input type="radio"/> Unknown	Type of Airworthiness Certificate <i>(Check all that apply)</i> <table border="0" style="width:100%;"> <tr> <td>Standard</td> <td>Special</td> </tr> <tr> <td><input checked="" type="checkbox"/> Normal</td> <td><input type="checkbox"/> Restricted</td> </tr> <tr> <td><input type="checkbox"/> Aerobatic</td> <td><input type="checkbox"/> Limited</td> </tr> <tr> <td><input type="checkbox"/> Balloon</td> <td><input type="checkbox"/> Provisional</td> </tr> <tr> <td><input type="checkbox"/> Commuter</td> <td><input type="checkbox"/> Special Flight</td> </tr> <tr> <td><input type="checkbox"/> Transport</td> <td><input type="checkbox"/> Experimental</td> </tr> <tr> <td><input type="checkbox"/> Utility</td> <td><input type="checkbox"/> Special Light-Sport</td> </tr> <tr> <td></td> <td><input type="checkbox"/> Experimental Light-Sport</td> </tr> </table> <input type="checkbox"/> Certificate of Authorization or Waiver (COA) <input checked="" type="checkbox"/> None <input type="checkbox"/> Unknown	Standard	Special	<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Restricted	<input type="checkbox"/> Aerobatic	<input type="checkbox"/> Limited	<input type="checkbox"/> Balloon	<input type="checkbox"/> Provisional	<input type="checkbox"/> Commuter	<input type="checkbox"/> Special Flight	<input type="checkbox"/> Transport	<input type="checkbox"/> Experimental	<input type="checkbox"/> Utility	<input type="checkbox"/> Special Light-Sport		<input type="checkbox"/> Experimental Light-Sport	Landing Gear <i>(Check all that apply)</i> <input type="checkbox"/> Retractable <input checked="" type="checkbox"/> Tricycle <input type="checkbox"/> Tailwheel <input type="checkbox"/> Amphibian <input type="checkbox"/> High Skid <input type="checkbox"/> Emergency Float <input type="checkbox"/> Skid <input type="checkbox"/> Float <input type="checkbox"/> Ski <input type="checkbox"/> Hull <input type="checkbox"/> Ski/Wheel <input type="checkbox"/> Other Launch/Recovery System <input type="checkbox"/> None <input type="checkbox"/> Unknown	Engine Type <i>(Select one)</i> <input checked="" type="radio"/> Reciprocating <input type="radio"/> Liquid Rocket <input type="radio"/> Turbo Shaft <input type="radio"/> Solid Rocket <input type="radio"/> Turbo Prop <input type="radio"/> Hybrid Rocket <input type="radio"/> Turbo Jet <input type="radio"/> None <input type="radio"/> Turbo Fan <input type="radio"/> Unknown <input type="radio"/> Electric Fuel System Type <i>(Reciprocating)</i> <input checked="" type="radio"/> Carburetor <input type="radio"/> Fuel-Injected
Standard	Special																		
<input checked="" type="checkbox"/> Normal	<input type="checkbox"/> Restricted																		
<input type="checkbox"/> Aerobatic	<input type="checkbox"/> Limited																		
<input type="checkbox"/> Balloon	<input type="checkbox"/> Provisional																		
<input type="checkbox"/> Commuter	<input type="checkbox"/> Special Flight																		
<input type="checkbox"/> Transport	<input type="checkbox"/> Experimental																		
<input type="checkbox"/> Utility	<input type="checkbox"/> Special Light-Sport																		
	<input type="checkbox"/> Experimental Light-Sport																		

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. <i>mm/dd/yyyy</i>	Rated Power <input checked="" type="radio"/> Horsepower or <input type="radio"/> lbs of Thrust	Total Time (hours)	Time Since: Inspection (hours)	Overhaul (hours)
Eng. 1	<u>Lycoming</u>	<u>O-320</u>	<u>unknown</u>	<u>unknown</u>	<u>150</u>	<u>Approx</u>		
Eng. 2								
Eng. 3								
Eng. 4								

Last Inspection Type <input type="radio"/> 100-Hour <input type="radio"/> Continuous Airworthiness <input type="radio"/> AAIP <input type="radio"/> Conditional Inspection <input checked="" type="radio"/> Annual <input type="radio"/> Unknown Date Last Inspection: _____ <i>mm/dd/yyyy</i> Airframe Total Time: _____ hrs hours measured at <i>(Select one)</i> <input type="radio"/> Last Inspection <input type="radio"/> Time of Accident/Incident	Propeller 1 <input checked="" type="radio"/> Fixed Pitch <input type="radio"/> Controllable Pitch <input type="radio"/> Ground Adjustable Manufacturer: <u>Hartzell Propellor Inc</u> Model: _____ Propeller 2 <input type="radio"/> Fixed Pitch <input type="radio"/> Controllable Pitch <input type="radio"/> Ground Adjustable Manufacturer: _____ Model: _____
Type of Maintenance Program <i>(Select one)</i> <input type="radio"/> Annual <input type="radio"/> Conditional (Amateur-built only) <input type="radio"/> Manufacturer's Inspection Program <input type="radio"/> Other Approved Inspection Program (AAIP) <input type="radio"/> Continuous Airworthiness <input type="radio"/> Other, specify: _____	ELT Installed: <input type="radio"/> Yes <input checked="" type="radio"/> No <i>If Yes:</i> ELT Manufacturer: _____ Model or Part No.: _____ TSO No.: <input type="radio"/> OC91 (121.5 MHz) <input type="radio"/> OC91a (121.5 MHz) <input type="radio"/> OC126 (406 MHz) Was ELT still mounted in aircraft? <input type="radio"/> Yes <input type="radio"/> No Was ELT still connected to antenna? <input type="radio"/> Yes <input type="radio"/> No Did ELT Activate? <input type="radio"/> Yes <input type="radio"/> No <i>If activated:</i> Did ELT Aid in Locating Aircraft? <input type="radio"/> Yes <input type="radio"/> No <i>If not activated:</i> Indicate Reason: <input type="checkbox"/> Impact Damage <input type="checkbox"/> Fire Damage <input type="checkbox"/> Battery Expired/Damaged <input type="checkbox"/> Unknown
Description of Fire Extinguishing System <input type="radio"/> None <input type="radio"/> Specify: _____	Additional Equipment <i>(Check all that apply)</i> <input checked="" type="checkbox"/> ADS-B <input type="checkbox"/> Airframe Parachute <input type="checkbox"/> Angle of Attack Indicator <input type="checkbox"/> Autopilot <input type="checkbox"/> Data Recorder <input checked="" type="checkbox"/> Electronic Flight Bag or Handheld Device <input type="checkbox"/> Electronic Multifunction Display <input type="checkbox"/> Electronic Primary Flight Display <input type="checkbox"/> Handheld GPS <input type="checkbox"/> Heads Up Display <input type="checkbox"/> Onboard Weather <input type="checkbox"/> Satellite Tracking Device <input type="checkbox"/> Stall Warning System <input type="checkbox"/> Video Recording Device <input type="checkbox"/> Other, Specify: _____

OWNER/OPERATOR INFORMATION**Registered Aircraft Owner**Name: Robert L. DardanoCity: BrocktonFractional Ownership Aircraft: Yes NoState: MA ZIP: 02301-2701Country: United States of America**Operator of Aircraft** Same As Registered Owner Same Address as Registered Owner

Name: _____

City: _____

Doing Business As: _____

State: _____ ZIP: _____

Air Carrier/Operator Designator (4 Character Code): _____

Country: _____

Operating Certificates Held*(Check all that apply)*

- None
- Flag Carrier Operating Certificate (FAR 121)
- Supplemental
- Air Cargo
- Foreign Air Carriers (FAR 129)
- Rotorcraft External Load (FAR 133)
- Commuter Air Carrier (FAR 135)
- On-Demand Air Taxi (FAR 135)
- Commercial Air Tour (FAR 136)
- Agricultural Aircraft (FAR 137)
- Pilot School (FAR 141)
- Certificate of Authorization or Waiver (COA)
- Commercial Space Transportation Experimental Permit
- Commercial Space Transportation License
- Other Operator of Large Aircraft

Regulation Flight Conducted Under

- FAR 91 FAR 129 FAR 415
- FAR 103 FAR 133 FAR 431
- FAR 121 FAR 135 FAR 435
- FAR 125 FAR 137 FAR 437
- FAR 91 Special Flight
- Non-US, Commercial
- Non-US, Non-commercial
- Public Aircraft *(Select one)*
- Armed Forces
- Federal
- State
- Local
- Unknown

Revenue Operation for FAR 121, 125, 129, 135*(Select one for each group)*

- Scheduled or Commuter Domestic
- Non-Scheduled or Air Taxi International
- Passenger
- Cargo
- Mail Contract Only

Purpose of Flight for FAR 91, 103, 133, 137*(Select one)*

- Aerial Application Firefighting Unknown
- Aerial Observation Flight Test
- Air Drop Glider Tow
- Air Race/Show Instructional
- Banner Tow Other Work Use
- Business Personal
- Executive/Corporate Positioning
- External Load Skydiving
- Ferry

Revenue Sightseeing Flight Yes No**Air Medical Flight** Yes No**AIRPORT INFORMATION (Fill in if accident/incident occurred on approach, landing, takeoff, departure, or within 3 miles of an airport)**Airport Name: CranlandDistance From Airport Center: Less than 1 smAirport Identifier: 28MDirection From Airport: 360 degrees trueProximity to Airport: Off Airport/Airstrip On Airport/Airstrip N/AAirport Elevation: 71 ft. msl**Runway Information**Runway ID: 36 (L/R/C) Length: _____ ft Width: _____ ft**Runway/Landing Surface (Check all that apply)**

- Asphalt Grass/Turf Macadam Water
- Concrete Gravel Metal/Wood
- Dirt Ice Snow Unknown

Condition of Runway/Landing Surface (Check all that apply)

- Dry Snow-Compacted Water-Calm
- Holes Snow-Crusted Water-Choppy
- Ice Covered Snow-Dry Water-Glassy
- Rough Snow-Wet Wet
- Rubber Deposits Soft
- Slush-Covered Vegetation Unknown

Approach/Departure Segment (Select one)

- Taxi VFR Departure On Instrument Approach Downwind Low Approach
- Takeoff IFR Departure Procedure/Clearance Landing Base Go Around
- Initial Climb Crosswind Unknown Final Aborted Landing (after touchdown)

IFR Approach (Check all that apply)

- None
- ADF/NDB PAR MLS Practice
- SDF Sidestep LDA GPS
- VOR/TVOR ILS ASR
- VOR/DME Localizer Only Visual
- TACAN LOC-back course Contact
- RNAV Circling
- Unknown

VFR Approach (Check all that apply)

- None
- Traffic Pattern Stop and Go
- Straight-In Touch and Go
- Valley/Terrain Following Simulated Forced Landing
- Go Around Forced Landing
- Full Stop Precautionary Landing
- Unknown

FLIGHT ITINERARY INFORMATION

Last Departure Point Airport ID: <u>KPYM</u> City: <u>Plymouth</u> State: <u>MA</u> Country: <u>United States of America</u>	Time of Departure Time: <u>13:30</u> Time Zone: <u>Eastern</u>	Destination Airport ID: <u>1B9</u> City: <u>Mansfield</u> State: <u>MA</u> Country: <u>United States of America</u>	Type Flight Plan Filed <input checked="" type="radio"/> None <input type="radio"/> VFR/IFR <input type="radio"/> Company VFR <input type="radio"/> IFR <input type="radio"/> Military VFR <input type="radio"/> Unknown <input type="radio"/> VFR Activated? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown
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Type of ATC Clearance/Service (Check all that apply)

<input type="checkbox"/> None	<input type="checkbox"/> Special VFR	<input type="checkbox"/> Special IFR	<input type="checkbox"/> VFR Flight Following	<input type="checkbox"/> Cruise
<input checked="" type="checkbox"/> VFR	<input type="checkbox"/> IFR	<input type="checkbox"/> VFR On Top	<input type="checkbox"/> Traffic Advisory	<input type="checkbox"/> Unknown / NA

Airspace where the accident/incident occurred (Check all that apply)

<input type="checkbox"/> Class A	<input checked="" type="checkbox"/> Class G	<input type="checkbox"/> Military Operations Area (MOA)	<input type="checkbox"/> Special	Altitude of In-Flight Occurrence: _____ ft msl
<input type="checkbox"/> Class B	<input type="checkbox"/> Demo Area	<input type="checkbox"/> Airport Advisory Area	<input type="checkbox"/> Air Traffic Control Area	
<input type="checkbox"/> Class C	<input type="checkbox"/> Warning Area	<input type="checkbox"/> Jet Training Area	<input type="checkbox"/> Unknown	
<input type="checkbox"/> Class D	<input type="checkbox"/> Prohibited Area	<input type="checkbox"/> TRSA		
<input type="checkbox"/> Class E	<input type="checkbox"/> Restricted Area	<input type="checkbox"/> FAR 93		

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Source of Pilot Weather Information (Check all that apply) <input checked="" type="checkbox"/> National Weather Service <input type="checkbox"/> Company <input type="checkbox"/> Flight Service Station <input type="checkbox"/> Military <input type="checkbox"/> TV/Radio <input type="checkbox"/> Internet <input checked="" type="checkbox"/> Automated Report <input type="checkbox"/> None <input type="checkbox"/> Commercial Weather Service (DUATS) <input type="checkbox"/> Unknown <input checked="" type="checkbox"/> On-Board Weather	Weather Observation Facility Facility ID: <u>KTAN</u> Observation Time: <u>13:45</u> Time Zone: <u>Eastern</u> Distance from Accident Site: <u>12</u> nm Direction from Accident Site: <u>057</u> degrees true
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Basic Conditions <input checked="" type="radio"/> VMC <input type="radio"/> IMC <input type="radio"/> Unknown	Light Condition <input type="radio"/> Dawn <input type="radio"/> Dusk <input type="radio"/> Dark Night <input type="radio"/> Unknown <input checked="" type="radio"/> Day <input type="radio"/> Night <input type="radio"/> Bright Night
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Sky/Lowest Cloud Condition <input checked="" type="radio"/> Clear <input type="radio"/> Thin Broken <input type="radio"/> Few <input type="radio"/> Thin Overcast <input type="radio"/> Partial Obscuration <input type="radio"/> Unknown <input type="radio"/> Scattered Lowest Cloud Condition Height _____ ft agl	Ceiling <input checked="" type="radio"/> None (Clear) <input type="radio"/> Obscured <input type="radio"/> Broken <input type="radio"/> Indefinite <input type="radio"/> Overcast <input type="radio"/> Unknown Ceiling Height _____ ft agl	Temperature: <u>10</u> (C) or _____ (F) Dew Point: <u>4</u> (C) or _____ (F) Altimeter Setting: _____ in. Hg or _____ MB
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Wind Direction <input type="checkbox"/> Variable -or- Direction: <u>270</u> degrees true	Wind Speed <input type="checkbox"/> Calm <input type="checkbox"/> Light and Variable -or- Speed: <u>9</u> kts	Wind Gusts <input checked="" type="checkbox"/> Not Gusting -or- Speed: _____ kts	Visibility <u>10</u> miles RVR: _____ feet RVV: _____ miles Density Altitude: _____ ft
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Intensity of Precipitation <input type="radio"/> Light <input type="radio"/> Moderate <input type="radio"/> Heavy <input type="radio"/> N/A <input type="radio"/> Unknown	Type of Precipitation (Check all that apply) <input checked="" type="checkbox"/> None <input type="checkbox"/> Drizzle <input type="checkbox"/> Freezing Rain <input type="checkbox"/> Rain <input type="checkbox"/> Ice Pellets <input type="checkbox"/> Snow Shower <input type="checkbox"/> Snow <input type="checkbox"/> Snow Pellets <input type="checkbox"/> Ice Pellets Shower <input type="checkbox"/> Hail <input type="checkbox"/> Snow Grains <input type="checkbox"/> Freezing Drizzle <input type="checkbox"/> Rain Showers <input type="checkbox"/> Ice Crystals	Restriction to Visibility (Check all that apply) <input checked="" type="checkbox"/> None <input type="checkbox"/> Fog <input type="checkbox"/> Blowing Dust <input type="checkbox"/> Ground Fog <input type="checkbox"/> Blowing Sand <input type="checkbox"/> Haze <input type="checkbox"/> Blowing Snow <input type="checkbox"/> Ice Fog <input type="checkbox"/> Blowing Spray <input type="checkbox"/> Smoke <input type="checkbox"/> Dust <input type="checkbox"/> Unknown
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Icing Forecast <table style="width:100%;"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td><input checked="" type="radio"/> None</td> <td><input type="radio"/> N/A</td> </tr> <tr> <td><input type="radio"/> Trace</td> <td><input type="radio"/> Rime</td> </tr> <tr> <td><input type="radio"/> Light</td> <td><input type="radio"/> Clear</td> </tr> <tr> <td><input type="radio"/> Moderate</td> <td><input type="radio"/> Mixed</td> </tr> <tr> <td><input type="radio"/> Severe</td> <td><input type="radio"/> Unknown</td> </tr> <tr> <td><input type="radio"/> Unknown</td> <td></td> </tr> </table>	Amount	Type	<input checked="" type="radio"/> None	<input type="radio"/> N/A	<input type="radio"/> Trace	<input type="radio"/> Rime	<input type="radio"/> Light	<input type="radio"/> Clear	<input type="radio"/> Moderate	<input type="radio"/> Mixed	<input type="radio"/> Severe	<input type="radio"/> Unknown	<input type="radio"/> Unknown		Icing Actual <table style="width:100%;"> <tr> <th>Amount</th> <th>Type</th> </tr> <tr> <td><input checked="" type="radio"/> None</td> <td><input type="radio"/> N/A</td> </tr> <tr> <td><input type="radio"/> Trace</td> <td><input type="radio"/> Rime</td> </tr> <tr> <td><input type="radio"/> Light</td> <td><input type="radio"/> Clear</td> </tr> <tr> <td><input type="radio"/> Moderate</td> <td><input type="radio"/> Mixed</td> </tr> <tr> <td><input type="radio"/> Severe</td> <td><input type="radio"/> Unknown</td> </tr> <tr> <td><input type="radio"/> Unknown</td> <td></td> </tr> </table>	Amount	Type	<input checked="" type="radio"/> None	<input type="radio"/> N/A	<input type="radio"/> Trace	<input type="radio"/> Rime	<input type="radio"/> Light	<input type="radio"/> Clear	<input type="radio"/> Moderate	<input type="radio"/> Mixed	<input type="radio"/> Severe	<input type="radio"/> Unknown	<input type="radio"/> Unknown		Turbulence <table style="width:100%;"> <tr> <th>Type</th> <th>Severity</th> </tr> <tr> <td><input checked="" type="checkbox"/> None</td> <td><input type="checkbox"/> Light</td> </tr> <tr> <td><input type="checkbox"/> Clear Air</td> <td><input type="checkbox"/> Moderate</td> </tr> <tr> <td><input type="checkbox"/> Terrain-Induced</td> <td><input type="checkbox"/> Severe</td> </tr> <tr> <td><input type="checkbox"/> Convective Turbulence</td> <td><input type="checkbox"/> Extreme</td> </tr> </table>	Type	Severity	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Light	<input type="checkbox"/> Clear Air	<input type="checkbox"/> Moderate	<input type="checkbox"/> Terrain-Induced	<input type="checkbox"/> Severe	<input type="checkbox"/> Convective Turbulence	<input type="checkbox"/> Extreme
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NOTAMs (D and FDC), AIRMETs, SIGMETs, PIREPs in effect at the time of the accident/incident:
Explosive device cleanup near Hanscom, SFC-2,499

DAMAGE TO AIRCRAFT AND OTHER PROPERTY**Aircraft Damage**

- None Substantial
 Minor Destroyed
 Unknown

Aircraft Fire

- None Both Ground and In-Flight
 In-Flight Fire at Unknown Time
 On-Ground Unknown

Aircraft Explosion

- None Both Ground and In-Flight
 In-Flight Explosion at Unknown Time
 On-Ground Unknown

Description of Damage to Aircraft and Other Property *(Use additional sheet if necessary)*

Upon impact, nose gear struck the soft ground and broke off, aircraft came to rest on leaning on its nose. The propellor struck the ground and the engine siezed upon propellors impact with the ground. A position light mounted ADSB device also broke off on impact.

NARRATIVE HISTORY OF FLIGHT *(Please type or print in ink)*

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State departure time and and location, services obtained, and intended destination. Provide as much detail as possible.

On December 23rd, 2019 at approximately 1:00PM myself, John DiMarzio III and my student, Robert L Dardano, departed Mansfield Municipal Airport (1B9) in a PA 28-140, tail number N5792U and departed for a local practice area. We went to Plymouth (PYM) and did a touch and go on runway 24. Upon departing we decided to go to Cranland (28M). We decided to select runway 36 at Cranland. The winds at PYM were favoring runway 24 at Plymouth near the coast. I also kept in mind the micrometeorological conditions that occur at Cranland. We observed the ripples in the water in the surrounding lakes and decided there was a direct crosswind across both runways. I though runway 36 was still a good choice because I knew we had the 300+ feet of grass ahead of the runway in case of a mishap, but I also noted about a 20 foot cliff with 60 foot trees on top of it at the far end of the airfield. Our first attempt at a landing resulted in a successful go around. On our second attempt, we came in to land and began to enter the flare above the numbers of the runway and about halfway down the runway we still had not touched down and I noted the excessive float and took a look out the window at the airports tetrahedron. It seemed we now had a tailwind so I told my student to go around. The student initiated the go around and instead of pitching the nose for airspeed, he mistakenly raised the nose with the intent of climbing, the airplane did not establish a climb, but instead bled off to 60mph, rotation speed of this particular aircraft is about 65mph with a Vx of 74mph. I knew we were much too slow, with a 1/4 of the runway remaining with little to no climb established I looked ahead at the cliff and trees fast approaching.

The tailwind and lack of energy in the airplane, resulted in my decision to take control of the aircraft, I was no longer interested in attempting to reenergize the aircraft and attempt a climb over the trees with insufficient distance, I was now concerned with saving my students life as well as my own so I pulled the power back immediately and landed in the grass section of the airport ahead of the runway. The nose wheel of the airplane broke off because of how soft the mud and grass in the field was and the prop struck the ground. Upon exiting the aircraft we noticed we indeed did have a tailwind at the time we came to a stop in the grass. About 40 minutes later, we were driven to the hangars at the airport and had a closer look at the windsock and the wind yet again shifted to favor 36.

I stand behind my actions. My student pitching excessively on rotation, and go arounds has been a running problem, that was recently getting better. Although the airport presents challenges with an 1800 foot runway the student had me convinced that he could handle the airport having been based there previously. Taking this into consideration I do believe I saved our lives by simply landing the airplane in the grass. Despite the opinion that we might have made it by taking a left turn over the shorter trees and houses, that is not a standard practice. Also, as far as the pitch attitude bleeding off airspeed on a go around I had in my head, the student and CFI in Mansfield about a year ago out of a flight school in Norwood that died because the student pitched excessively during a go around and the CFI didn't recover. So, my first action was to pitch the nose of the airplane over in attempt to regain energy, but with a 150 horsepower motor, inefficient wing compared to other aircraft, the airplane was not going to climb over the trees.

I am employed as a CFI at Bridgewater State University after completing their four year aviation program successfully. This particular student has been through 14 CFIs, has about 250 hours and still has not been signed off to take the Private Pilot Practical Exam.

RECOMMENDATION (How could this accident/incident have been prevented?)

Operator/Owner Safety Recommendation

As a CFI, I should not have been willing to conduct flight training at an airport such as Cranland. As a result of this accident, I have established new personal minimums while giving instruction such as, I will not conduct flight training at an airstrip any less than 2,200 feet and I will elect to initiate a go around if the main gear has not touched down before we exceed one third of the runway. Further, I have conducted short field standards flights with my full time employers to regain my confidence, reenforce my decision making skills when operating at airfields with runways less than 2,200 feet.

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)

Was there Mechanical Malfunction/Failure? Yes No
(If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.)

Total Time/Cycles On Part

_____ Hours

_____ Cycles

Time Since This Part Inspected/Overhauled

_____ Hours

FUEL & SERVICES INFORMATION**Fuel on Board at Last Takeoff***(Convert from pounds, as necessary)*

30 _____ Gallons

Fuel Type 80/87 115/145 Jet B Other, specify _____ 100 Low Lead Jet A JP8 100/130 Jet A-1 Automotive**Other Services, if Any, Prior to Departure****EVACUATION OF AIRCRAFT**Was an emergency evacuation of the aircraft performed? Yes No**Method of Exit** – Describe how the occupants exited and how many occupants evacuated each location

Right seat occupant unlatched door and got out and assisted left seat occupant in getting from the wing to ground. When both were out of the aircraft, we moved towards the back away from the engine.

OTHER AIRCRAFT – COLLISION (If air or ground collision occurred, complete this section for other aircraft)

Aircraft Registration Number _____

Manufacturer: _____

Model: _____

Damage to Other Aircraft Destroyed Minor Substantial None**Registered Owner of Other Aircraft**

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

Pilot of Other Aircraft

Name: _____

City: _____

State: _____ ZIP: _____

Country: _____

ADDITIONAL INFORMATION (Please type or print in ink)

Use this space if additional space is needed for any answers.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Date of this Report

02/27/2020
mm/dd/yyyy

Name of Pilot/Operator: John DiMarzio III

Signature: _____

-- or -- Check here to electronically sign this document

If a Person Other than Pilot/Operator is Filing Report

Name: _____ Title: _____

Signature: _____

-- or -- Check here to electronically sign this document

FOR NTSB USE ONLY

NTSB Accident/Incident No.
ERA20CA111

Reviewed by NTSB Regional Office
Ashburn, VA

Name of Investigator
M. Hill

Date Report Received
2/27/20