



# Aviation Investigation Final Report

<b>Location:</b>	Plymouth, Massachusetts	<b>Accident Number:</b>	NYC01LA165
<b>Date &amp; Time:</b>	July 3, 2001, 17:30 Local	<b>Registration:</b>	N3042M
<b>Aircraft:</b>	Piper PA-12	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>		<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 91: General aviation - Personal		

## Analysis

The pilot attempted to start the airplane; however, the starter would not engage. He then exited the airplane and rotated the propeller. During the third rotation, the engine started, and the airplane began to roll forward. The airplane struck a parked, unoccupied aircraft before the pilot was able to shut down the engine. Examination of the airplane's magnetos, P-leads, and ignition switch did not revealed any abnormalities. The starter switch operated correctly; however, the starter motor gear would not thrust forward to engage the engine ring gear. The pilot stated he did not intend to start the airplane when he rotated the propeller, and in retrospect, he felt rushed and "probably forgot" to turn the magnetos to the "off" position, prior to exiting the airplane.

## 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 the magnetos were off prior to rotating the propeller, which resulted in an unintentional engine start and subsequent unmanned taxi.

## Findings

Occurrence #1: ON GROUND/WATER COLLISION WITH OBJECT  
Phase of Operation: STANDING - STARTING ENGINE(S)

## Findings

1. (C) IGNITION SYSTEM,MAGNETO - NOT DISENGAGED
2. (C) PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND

## Factual Information

On July 3, 2001, about 1730 eastern daylight time, a Piper PA-12, N3042M, was substantially damaged during an unmanned taxi after engine start at the Plymouth Municipal Airport, (PYM), Plymouth, Massachusetts. The certificated commercial pilot was not injured. Visual meteorological conditions prevailed and no flight plan had been filed for the flight destined for the Lawrence Municipal Airport (LWM), Lawrence, Massachusetts. The personal flight was conducted under 14 CFR Part 91.

According to the pilot, he attempted to start the airplane; however, the starter would not engage. He then exited the airplane and rotated the propeller. During the third rotation, the engine started and the un-chocked airplane began to roll forward.

The airplane struck a parked, unoccupied aircraft before the pilot was able to shut down the engine.

Examination of the airplane's magnetos, P-leads, and ignition switch by a Federal Aviation Administration inspector did not revealed any abnormalities. It was noted that the starter switch operated correctly; however, the starter motor gear would not thrust forward to engage the engine ring gear.

During a subsequent telephone interview, the pilot stated that he did not intend to start the airplane when he rotated the propeller, and in retrospect, he felt rushed and "probably forgot" to turn the magnetos to the "off" position, prior to exiting the airplane.

### Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	26, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 1 Valid Medical-w/ waivers/lim	<b>Last FAA Medical Exam:</b>	June 1, 2000
<b>Occupational Pilot:</b>	UNK	<b>Last Flight Review or Equivalent:</b>	May 23, 2000
<b>Flight Time:</b>	1200 hours (Total, all aircraft), 600 hours (Total, this make and model), 150 hours (Last 90 days, all aircraft), 50 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N3042M
<b>Model/Series:</b>	PA-12	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Normal	<b>Serial Number:</b>	12-1734
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	May 17, 2001 Annual	<b>Certified Max Gross Wt.:</b>	1750 lbs
<b>Time Since Last Inspection:</b>	15 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	2231 Hrs at time of accident	<b>Engine Manufacturer:</b>	Lycoming
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	O-360
<b>Registered Owner:</b>	Aviad Corp.	<b>Rated Power:</b>	180 Horsepower
<b>Operator:</b>		<b>Operating Certificate(s) Held:</b>	None

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>	PYM,149 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	17:52 Local	<b>Direction from Accident Site:</b>	0°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	9 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	200°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	30.15 inches Hg	<b>Temperature/Dew Point:</b>	21°C / 10°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Plymouth, MA (PYM )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	LAWRENCE, MA (LWM )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>		<b>Type of Airspace:</b>	Class G

## Airport Information

<b>Airport:</b>	PLYMOUTH MUNI PYM	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	149 ft msl	<b>Runway Surface Condition:</b>	Unknown
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	None

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	41.908889,-70.728614

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Schiada, Luke
<b>Additional Participating Persons:</b>	Jack Keenan; Bedford, MA
<b>Original Publish Date:</b>	November 4, 2002
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	The NTSB traveled to the scene of this accident.
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=52622">https://data.ntsb.gov/Docket?ProjectID=52622</a>

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