



# National Transportation Safety Board Aviation Accident Data Summary

<b>Location:</b>	Anchorage, AK	<b>Accident Number:</b>	ANC14FA050
<b>Date &amp; Time:</b>	07/02/2014, 0820 AKD	<b>Registration:</b>	N3512M
<b>Aircraft:</b>	PIPER PA 12	<b>Injuries:</b>	1 Fatal
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Analysis

The accident flight was the airplane's first flight after undergoing maintenance and modification over the course of several years. A witness reported that, during the takeoff, the airplane climbed steeply in an extreme, nose-high attitude until it "pivoted" at the apex of the climb and then entered a descent straight to the ground. The airplane's described motions are consistent with the airplane exceeding its critical angle of attack and entering an aerodynamic stall; crush damage to the nose of the airplane and the leading edges of the wings was consistent with a nearly vertical flight path at the time of impact. Examination of the wreckage revealed that the airplane's elevator control cables were misrigged, such that they were attached to the incorrect (opposite) locations on the upper and lower elevator control horn, resulting in a reversal of elevator control inputs. Maintenance logs for the airplane contained no entries more recent than 2007. Several people reported that the pilot often performed maintenance on the airplane; however, none indicated knowledge of who performed maintenance on the elevator controls. A "BEFORE TAKEOFF" checklist for the airplane included the item, "CONTROLS – FREE AND CORRECT." If the pilot had checked the elevator for correct motion before takeoff, he likely would have discovered that it was misrigged.

## Flight Events

Prior to flight - Aircraft maintenance event  
Takeoff - Flight control sys malf/fail  
Uncontrolled descent - Collision with terr/obj (non-CFIT)

## Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The incorrect (reverse) rigging of the elevator control cables, and the pilot's inadequate preflight inspection, which failed to detect the misrigging.

## Findings

Aircraft-Aircraft systems-Flight control system-Elevator control system-Incorrect service/maintenance - C  
Personnel issues-Task performance-Inspection-Preflight inspection-Pilot - C  
Personnel issues-Task performance-Maintenance-Installation-Other/unknown - C

## Pilot Information

<b>Certificate:</b>	Commercial; Private	<b>Age:</b>	61
<b>Airplane Rating(s):</b>	Multi-engine Land; Single-engine Land	<b>Instrument Rating(s):</b>	None
<b>Other Aircraft Rating(s):</b>	Balloon	<b>Instructor Rating(s):</b>	None
<b>Flight Time:</b>	(Estimated) 400 hours (Total, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Manufacturer:</b>	PIPER	<b>Registration:</b>	N3512M
<b>Model/Series:</b>	PA 12	<b>Engines:</b>	1 Reciprocating
<b>Operator:</b>	On file	<b>Engine Manufacturer:</b>	LYCOMING
<b>Air Carrier Operating Certificate:</b>	None	<b>Engine Model/Series:</b>	O-320-A2A
<b>Flight Conducted Under:</b>	Part 91: General Aviation - Personal		

## Meteorological Information and Flight Plan

<b>Observation Facility, Elevation:</b>	MRI, 124 ft msl	<b>Weather Information Source:</b>	Weather Observation Facility
<b>Conditions at Accident Site:</b>	Visual Conditions	<b>Lowest Ceiling:</b>	None
<b>Condition of Light:</b>	Day	<b>Wind Speed/Gusts, Direction:</b>	Calm
<b>Temperature:</b>	/ 9° C	<b>Visibility</b>	10 Miles
<b>Precipitation and Obscuration:</b>			
<b>Departure Point:</b>	Anchorage, AK (MRI)	<b>Destination:</b>	

## Airport Information

<b>Airport:</b>	Merrill Field Airport (MRI)	<b>Runway Surface Type:</b>	Asphalt
<b>Runway Used:</b>	25	<b>Runway Surface Condition:</b>	Dry
<b>Runway Length/Width:</b>	4000 ft / 100 ft		

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 Fatal	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	N/A	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Catherine Gagne	<b>Adopted Date:</b>	09/23/2015
<b>Note:</b>	The NTSB traveled to the scene of this accident.		
<b>Investigation Docket:</b>	<a href="http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=89591">http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=89591</a>		

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