



# Aviation Investigation Final Report

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<b>Location:</b>	Lime Village, Alaska	<b>Accident Number:</b>	ANC09LA102
<b>Date &amp; Time:</b>	September 15, 2009, 17:00 Local	<b>Registration:</b>	N2594M
<b>Aircraft:</b>	Piper PA-12	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Loss of control on ground	<b>Injuries:</b>	2 None
<b>Flight Conducted Under:</b>	Part 135: Air taxi & commuter - Non-scheduled		

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## Analysis

The commercial pilot and one passenger were taking off from a gravel-covered, remote off-airport site in a tailwheel-equipped airplane on a Title 14, Code of Federal Regulations Part 135 charter flight when the accident occurred. The pilot related that as the airplane accelerated, it began to turn sharply to the right, and towards a stand of trees. The airplane's right wing struck the stand of trees, which pivoted it to the right where it nosed over, sustaining substantial damage to the wings, fuselage, and empennage. A postaccident inspection revealed that the passenger, seated in the rear of the airplane, inadvertently stepped on the right, rear-mounted dual brake pedal, as the pilot began his takeoff run. The pilot stated that there were no preaccident mechanical problems with the airplane, and that the accident could have been prevented if he had removed or covered the rear-mounted dual brake pedals.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The passenger's inadvertent interference with, and application of the right brake pedal during takeoff.

## Findings

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<b>Aircraft</b>	Directional control - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Personnel issues</b>	(general) - Passenger

## Factual Information

### History of Flight

<b>Takeoff</b>	Loss of control on ground (Defining event)
<b>Takeoff</b>	Collision with terr/obj (non-CFIT)
<b>Takeoff</b>	Nose over/nose down

On September 15, 2009, about 1700 Alaska daylight time, a Piper PA-12 airplane, N2594M, sustained substantial damage when it collided with trees during takeoff from a gravel-covered, remote off-airport site, about 35 miles northeast of Lime Village, Alaska. The airplane was being operated as a visual flight rules (VFR) on-demand charter flight under the provisions of Title 14 Code of Federal Regulations (CFR) Part 135, when the accident occurred. The airplane was owned and operated by Magnuson Airways, LLC, McGrath, Alaska. The commercial pilot and sole passenger were not injured. Visual meteorological conditions prevailed, and company flight following procedures were in effect. The accident flight was shuttling a group of hunters and gear to another off-airport site.

During a telephone conversation with the National Transportation Safety Board investigator-in-charge on September 17, the pilot related that before departing from the 900 feet long gravel-covered site, he assessed the wind conditions before departing to the southwest. He determined that a slight westerly wind, ranging between 5 and 10 knots, would require a slight correction for a quartering right crosswind during his takeoff run. The pilot reported that during the takeoff run, as the airplane accelerated, it began to turn sharply to the right, and towards a stand of trees. The airplane's right wing struck the stand of trees, which pivoted it to the right. The airplane subsequently nosed over, sustaining substantial damage to the wings, fuselage, and empennage.

The pilot noted that a postaccident inspection revealed that his passenger, seated in the rear of the airplane, inadvertently stepped on the right, rear-mounted dual brake pedal, as the pilot began his takeoff run.

In the pilot's written statement to the NTSB he indicated that there were no preaccident mechanical problems with the airplane. Additionally, he recommended either removing or covering the rear-mounted dual brake pedals.

## Pilot Information

<b>Certificate:</b>	Commercial	<b>Age:</b>	34, Male
<b>Airplane Rating(s):</b>	Single-engine land	<b>Seat Occupied:</b>	Front
<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 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	June 22, 2009
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	
<b>Flight Time:</b>	2200 hours (Total, all aircraft), 2200 hours (Pilot In Command, all aircraft), 1 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Piper	<b>Registration:</b>	N2594M
<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>	12-1037
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	3
<b>Date/Type of Last Inspection:</b>	September 2, 2009 100 hour	<b>Certified Max Gross Wt.:</b>	
<b>Time Since Last Inspection:</b>	10 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	3283 Hrs at time of accident	<b>Engine Manufacturer:</b>	LYCOMING
<b>ELT:</b>	C91 installed, not activated	<b>Engine Model/Series:</b>	O-320
<b>Registered Owner:</b>	ROBERT L MAGNUSON	<b>Rated Power:</b>	160 Horsepower
<b>Operator:</b>	MAGNUSON AIRWAYS LLC	<b>Operating Certificate(s) Held:</b>	On-demand air taxi (135)

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Day
<b>Observation Facility, Elevation:</b>		<b>Distance from Accident Site:</b>	
<b>Observation Time:</b>		<b>Direction from Accident Site:</b>	
<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>	5 knots /	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>	270°	<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>		<b>Temperature/Dew Point:</b>	16°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Lime Village, AK	<b>Type of Flight Plan Filed:</b>	Company VFR
<b>Destination:</b>	Lime Village, AK	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	18:00 Local	<b>Type of Airspace:</b>	

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>	1 None	<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	2 None	<b>Latitude, Longitude:</b>	61.5,-154.116668(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Johnson, Clinton
<b>Additional Participating Persons:</b>	James C Holden; Federal Aviation Administration (Airworthiness); Anchorage, AK
<b>Original Publish Date:</b>	October 21, 2010
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	
<b>Investigation Docket:</b>	<a href="https://data.ntsb.gov/Docket?ProjectID=74761">https://data.ntsb.gov/Docket?ProjectID=74761</a>

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](#).