



Aviation Investigation Final Report

Location:	Atmautluak, Alaska	Accident Number:	ANC09LA018
Date & Time:	February 7, 2009, 09:45 Local	Registration:	N5246D
Aircraft:	Cessna 172N	Aircraft Damage:	Substantial
Defining Event:	Aerodynamic stall/spin	Injuries:	4 Minor
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The commercial pilot was on an on-demand air taxi flight with three passengers and their baggage. He stated that he was approaching a remote airport to land on Runway 15 when the wind shifted and he encountered wind gusts that made the airplane difficult to control. He said that he added full power to go around, but that the airplane would not climb, stalled, and then descended to the ground short of the runway. The airplane sustained substantial damage to the wings and fuselage. Federal Aviation Administration inspectors found no mechanical problems with the airplane and determined that it was being operated at least 166 pounds over the maximum gross weight limit. Operating an airplane over the certificated gross weight is prohibited and markedly reduces its performance capabilities.

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 adequate airspeed while landing in gusty winds, which resulted in an aerodynamic stall; his improper aircraft weight calculations; and his operation of the airplane over the allowable gross weight limit.

Findings

Aircraft	Maximum weight - Capability exceeded
Aircraft	Airspeed - Not attained/maintained
Personnel issues	Weight/balance calculations - Pilot
Personnel issues	(general) - Pilot
Environmental issues	Gusts - Effect on operation

Factual Information

History of Flight

Approach-VFR go-around	Aerodynamic stall/spin (Defining event)
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On February 7, 2009, about 0945 Alaska standard time, a Cessna 172N airplane, N5246D, operated by JP Air, Bethel, Alaska, as an on demand, Title 14, CFR Part 135 air taxi flight, crashed during a go-around while on approach to the Atmautluak airport, Atmautluak, Alaska. The commercial pilot and the three passengers reported minor injuries. The flight departed Bethel about 0925, and was en route to Atmautluak, with a return to Bethel. Visual meteorological conditions prevailed, and a company flight plan was in effect.

During a telephone interview with the National Transportation Safety Board (NTSB) investigator-in-charge on February 7 at 1515, the pilot reported that he encountered shifting winds during his approach to land on runway 15, and attempted to go-around to land on runway 33. During the attempted go-around, the airplane did not climb as expected, and the pilot said an aerodynamic stall ensued, resulting in a collision with tundra short of the runway. He was asked about the number of passengers and fuel aboard, and said he had full tanks when he departed Bethel, with three passengers and their baggage.

In a written report to the NTSB signed by the pilot and director of operations, the fuel quantity at the time of departure from Bethel is listed as 20 gallons and the airplane's gross weight at the time of the accident as 2287 pounds, below the 2300 pounds licensed maximum gross weight.

Two Federal Aviation Administration (FAA) aviation safety inspectors traveled to the accident site and to Bethel on February 9 and 10 to inspect the airplane and its records, interview the pilot, and to talk to the witnesses and passengers. In the process, the inspectors discovered that the airplane's licensed empty weight was 1514.6 pounds. Total passenger weights, not accounting for their clothing, was 552 pounds, with an additional 50 pounds of baggage. The pilot's FAA medical weight is listed as 249 pounds, although the FAA inspector who interviewed him is 300 pounds, and thought the pilot was larger than him. Assuming 15 gallons of usable fuel at 6.7 pounds per gallon, the total weight of the airplane at the time of the accident was at least 2466.1 pounds, or 166.1 pounds over the allowable gross weight. Additional fuel, passenger clothing, or pilot's weight in excess of the amount stated, would increase the amount over the maximum allowable gross weight.

Copies of the FAA inspector's statements are included in the public docket of this report. In their statements, they note that they pilot indicated he thought the airplane may have been over the allowable gross weight at the time of the accident. The inspectors discovered no

evidence of any preimpact mechanical problems with the airplane.

In the operator's report to the NTSB, signed by the pilot and director of operations, the block for indicating mechanical malfunction was checked "NO."

Information

Certificate:	Commercial	Age:	50, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):		Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 2 With waivers/limitations	Last FAA Medical Exam:	March 5, 2008
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	October 28, 2008
Flight Time:	1705 hours (Total, all aircraft), 1100 hours (Total, this make and model), 1588 hours (Pilot In Command, all aircraft), 144 hours (Last 90 days, all aircraft), 59 hours (Last 30 days, all aircraft), 2 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N5246D
Model/Series:	172N	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	17272468
Landing Gear Type:	Tricycle	Seats:	4
Date/Type of Last Inspection:	January 6, 2009 100 hour	Certified Max Gross Wt.:	2300 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:	7614 Hrs as of last inspection	Engine Manufacturer:	LYCOMING
ELT:	C91A installed, activated, did not aid in locating accident	Engine Model/Series:	O-320 SERIES
Registered Owner:	East Coast Leasing	Rated Power:	160 Horsepower
Operator:	JP Air	Operating Certificate(s) Held:	On-demand air taxi (135)

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	Condition of Light:	Day
Observation Facility, Elevation:		Distance from Accident Site:	
Observation Time:		Direction from Accident Site:	
Lowest Cloud Condition:		Visibility	10 miles
Lowest Ceiling:		Visibility (RVR):	
Wind Speed/Gusts:	18 knots / 23 knots	Turbulence Type Forecast/Actual:	/
Wind Direction:	310°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	-12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Bethel, AK (PABE)	Type of Flight Plan Filed:	Company VFR
Destination:	Atmautluak, AK	Type of Clearance:	None
Departure Time:	09:40 Local	Type of Airspace:	

Airport Information

Airport:	Atmautluak	Runway Surface Type:	
Airport Elevation:	17 ft msl	Runway Surface Condition:	
Runway Used:		IFR Approach:	None
Runway Length/Width:		VFR Approach/Landing:	Traffic pattern

Wreckage and Impact Information

Crew Injuries:	1 Minor	Aircraft Damage:	Substantial
Passenger Injuries:	3 Minor	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Minor	Latitude, Longitude:	60.866943,-162.273056

Administrative Information

Investigator In Charge (IIC):	LaBelle, James
Additional Participating Persons:	Phillip Kathman; FAA, Anchorage Flight Standards District Office; Anchorage, AK
Original Publish Date:	July 28, 2009
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=73345

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](#).