



Aviation Investigation Final Report

Location:	Yakutat, Alaska	Accident Number:	ANC05LA133
Date & Time:	September 1, 2005, 17:00 Local	Registration:	N4991F
Aircraft:	Cessna 206	Aircraft Damage:	Substantial
Defining Event:		Injuries:	5 None
Flight Conducted Under:	Part 91: General aviation - Personal		

Analysis

The airline transport certificated pilot, with four passengers, fishing equipment, and a dog aboard, were departing on a personal flight from a remote gravel airstrip that was 1,100 feet long and 10 feet wide. The FAA's Airport/Facility Directory, Alaska Supplement listing for the airstrip includes "...dips and humps 8 to 12 inches entire length. Rocks on surface to 3 inches. Runway used as a road." The pilot told the NTSB investigator-in-charge (IIC) that during the takeoff roll, the airplane became airborne in ground effect, but the engine power rapidly decreased, and the airplane settled into about 12 inches of water in a tidal zone. The pilot indicated that the airplane had flown through heavy rain in the previous four days, but he had not encountered any problems until the accident takeoff. The airplane received structural damage to the right wingtip and right wing root. An FAA inspector interviewed the pilot and passengers, and reported that the pilot told him the airplane became airborne after hitting some bumps about 2/3 of the way down the runway. The pilot said he attempted to keep the airplane airborne in ground effect, but it settled to the soft ground beyond the end of the runway in high grass and water. Based on his interviews, the inspector estimated that the airplane was within 100 pounds of its gross weight limit. The inspector indicated that air taxi operators in the local area only use the airstrip while carrying a reduced load due to the condition of the airstrip surface. Sufficient structural and propeller repairs were made to the airplane at the accident scene allowing it to be flown out by recovery personnel, and they did not report any engine problems.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's selection of unsuitable terrain for takeoff, and his failure to maintain adequate airspeed during takeoff initial climb from a remote airstrip, which resulted in the airplane

descending to the ground and colliding with soft terrain beyond the end of the airstrip. Factors contributing to the accident were the rough/uneven airstrip surface consisting of humps and rocks, and an inadvertent stall/mush.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) TERRAIN CONDITION - ROUGH/UNEVEN
2. (C) UNSUITABLE TERRAIN OR TAKEOFF/LANDING/TAXI AREA - SELECTED - PILOT IN COMMAND
3. (C) AIRSPEED(VS) - NOT MAINTAINED - PILOT IN COMMAND
4. STALL/MUSH - INADVERTENT - PILOT IN COMMAND
5. CLIMB - NOT ATTAINED - PILOT IN COMMAND

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: DESCENT - UNCONTROLLED

Findings

6. TERRAIN CONDITION - SOFT
7. TERRAIN CONDITION - WATER

Factual Information

On September 1, 2005, about 1700 Alaska daylight time, a wheel-equipped Cessna 206 airplane, N4991F, sustained substantial damage when it collided with soft terrain in a tidal area during takeoff initial climb from a remote airstrip, about 45 miles east of Yakutat, Alaska. The airplane was being operated by the pilot as a visual flight rules (VFR) local area personal flight under Title 14, CFR Part 91, when the accident occurred. The airline transport certificated pilot and the four passengers were not injured. Visual meteorological conditions prevailed. The flight originated at the East Alsek River airstrip, and was en route to the Tanis Mesa airstrip. No flight plan was filed.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), on September 2, the pilot reported that he was departing on runway 20 from the gravel surfaced East Alsek River airstrip, which is 1,100 feet long, and 10 feet wide. The pilot said that during the takeoff roll, the airplane became airborne in ground effect, but the engine power rapidly decreased, and the airplane settled into about 12 inches of water in the tidal zone of the East Alsek River. During the touchdown, the right main landing gear dug into the soft sand, spinning the airplane to the right. The propeller and right wingtip struck the ground. The pilot indicated that the airplane had flown through heavy rain in the previous four days, but he had not encountered any problems until the accident takeoff. The airplane received structural damage to the right wingtip and right wing root.

The FAA's Airport/Facility Directory, Alaska Supplement listing for the airstrip states, in part: "Unattended. Runway 02-20 [has] dips and humps 8 to 12 inches entire length. Rocks on surface to 3 inches. Runway used as a road."

On September 12, recovery personnel reported via telephone that sufficient airframe and propeller repairs were made to the airplane at the accident site, and it was flown to Anchorage, Alaska. On January 11, 2006, recovery personnel stated that no engine problems were encountered during the recovery process.

The pilot was sent a Pilot/Operator Aircraft Accident Report (NTSB form 6120.1) on September 7, but the form was not received at the NTSB's Alaska Regional Office, Anchorage. During a telephone conversation with the NTSB IIC on December 13, the pilot reported that he mailed the form. A second NTSB Form 6120.1 was sent to the pilot on December 13, but was not received at the NTSB's Alaska Regional Office.

An FAA Air Safety Inspector, Juneau Flight Standards District Office, Juneau, Alaska, interviewed the pilot and passengers. The inspector reported that the pilot told him the airplane became airborne after hitting some bumps about 2/3 of the way down the runway. The pilot said he attempted to keep the airplane airborne in ground effect, but it settled to the

ground beyond the end of the runway in high grass and water. Based on his interviews, the inspector estimated that the airplane was within 100 pounds of its gross weight limit with the pilot and passengers, fishing equipment, and a dog aboard. The airplane was not equipped with oversize tires. The inspector indicated that air taxi operators in the local area only use the airstrip while carrying a reduced amount of load due to the condition of the airstrip surface.

Pilot Information

Certificate:	Airline transport; Commercial; Private	Age:	50, Male
Airplane Rating(s):	Single-engine land; Multi-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With waivers/limitations	Last FAA Medical Exam:	May 1, 2005
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	11600 hours (Total, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	Registration:	N4991F
Model/Series:	206	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Normal	Serial Number:	U2060691
Landing Gear Type:	Tricycle	Seats:	5
Date/Type of Last Inspection:	December 1, 2004 Annual	Certified Max Gross Wt.:	3600 lbs
Time Since Last Inspection:		Engines:	1 Reciprocating
Airframe Total Time:		Engine Manufacturer:	Continental
ELT:	Installed, not activated	Engine Model/Series:	IO-520
Registered Owner:	Christopher P. Chouinard	Rated Power:	300 Horsepower
Operator:		Operating Certificate(s) Held:	None

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:	Clear	Visibility	10 miles
Lowest Ceiling:	None	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	18°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Yakutat, AK (AK76)	Type of Flight Plan Filed:	None
Destination:	Yakutat, AK (A69)	Type of Clearance:	None
Departure Time:	17:00 Local	Type of Airspace:	

Airport Information

Airport:	East Alsek River AK76	Runway Surface Type:	Gravel
Airport Elevation:	20 ft msl	Runway Surface Condition:	Dry
Runway Used:	20	IFR Approach:	None
Runway Length/Width:	1100 ft / 10 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	4 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	5 None	Latitude, Longitude:	59.12611,-138.406951

Administrative Information

Investigator In Charge (IIC):	Erickson, Scott
Additional Participating Persons:	Larry West; FAA-AL JNU FSDO 05; Juneau, AK
Original Publish Date:	June 28, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=62400

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](#).