



National Transportation Safety Board Aviation Accident Final Report

Location:	TOKSOOK BAY, AK	Accident Number:	ANC96LA012
Date & Time:	11/03/1995, 1647 AST	Registration:	N88BC
Aircraft:	CESSNA 207	Aircraft Damage:	Substantial
Defining Event:		Injuries:	7 None

Flight Conducted Under: Part 135: Air Taxi & Commuter - Scheduled

Analysis

The certificated commercial pilot and six passengers were departing a remote airstrip on a scheduled commuter flight. Snow showers were present in the area. The pilot loaded the passengers and waited on the ground for conditions to improve. Prior to departure, the pilot removed snow from the windshield and the leading edge of the wing. After a ground time of about 40 minutes, the pilot began a takeoff on a runway that sloped uphill about 2 percent. The airplane did not become airborne until the pilot added full flaps. The airplane lifted off but could not climb out of ground effect. A small hill was ahead of the pilot and she began to retract the flaps. The airplane collided with rising terrain about 1/4 mile north of the departure end of the runway. A pilot/witness indicated that after the accident, he walked to the accident site and observed snow on the upper surface of the wings.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's inadequate planning/decision, improper use of the flaps, and inadequate removal of snow/frost from the wings of the airplane. An upsloping runway and snow conditions were factors in the accident.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: TAKEOFF - INITIAL CLIMB

Findings

1. (F) TERRAIN CONDITION - UPHILL
2. (C) PLANNING/DECISION - INADEQUATE - PILOT IN COMMAND
3. (C) FLAPS - IMPROPER USE OF - PILOT IN COMMAND
4. (F) WEATHER CONDITION - SNOW
5. (C) ICE/FROST REMOVAL FROM AIRCRAFT - INADEQUATE - PILOT IN COMMAND

Factual Information

On November 3, 1995, about 1647 Alaska standard time, a wheel equipped Cessna 207, N88BC, collided with terrain during takeoff at Toksook Bay, Alaska. The airplane was being operated as flight number 1216 on a visual flight rules (VFR) cross-country scheduled passenger flight under Title 14 CFR Part 135 when the accident occurred. The airplane, operated by Mark Air Express, Anchorage, Alaska, sustained substantial damage. The certificated commercial pilot and 6 passengers, were not injured. Visual meteorological conditions prevailed. VFR company flight following procedures were in effect.

The operator reported that the pilot was departing runway 33 for a flight to Bethel, Alaska. The pilot and other pilot witnesses reported that snow showers were present in the area. The pilot arrived at Toksook Bay about 1609. She loaded the passengers and waited on the ground for conditions to improve. The pilot indicated that prior to departure, she removed snow from the windshield and the leading edge of the wing. During the takeoff roll, the airplane did not become airborne until the pilot added full flaps. The airplane lifted off but could not climb out of ground effect. A small hill was ahead of the pilot and she began to retract the flaps. The airplane collided with rising terrain about 1/4 mile north of the departure end of the runway. The airplane received damage to the left main landing gear, left wing, nose gear and propeller.

A pilot/witness indicated that after the accident, he walked to the accident site and observed snow on the upper surface of the wings. The Alaska airport/facility directory supplement indicates in part:..."Runway uneven grade, deep dip 800 feet from threshold of runway 33. Runway 15-33 slopes down 2 percent to the south end"...

Pilot Information

Certificate:	Flight Instructor; Commercial	Age:	27, Female
Airplane Rating(s):	Multi-engine Land; Single-engine Sea	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	Second Pilot Present:	No
Instructor Rating(s):	Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	Last FAA Medical Exam:	04/21/1995
Occupational Pilot:	Last Flight Review or Equivalent:		
Flight Time:	1732 hours (Total, all aircraft), 43 hours (Total, this make and model), 1593 hours (Pilot In Command, all aircraft), 119 hours (Last 90 days, all aircraft), 35 hours (Last 30 days, all aircraft), 8 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	Registration:	N88BC
Model/Series:	207 207	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	20700748
Landing Gear Type:	Tricycle	Seats:	7
Date/Type of Last Inspection:	AAIP	Certified Max Gross Wt.:	3800 lbs
Time Since Last Inspection:	14 Hours	Engines:	1 Reciprocating
Airframe Total Time:	12884 Hours	Engine Manufacturer:	CONTINENTAL
ELT:	Installed, activated, did not aid in locating accident	Engine Model/Series:	IO-520
Registered Owner:	MARK AIR EXPRESS	Rated Power:	300 hp
Operator:	MARK AIR EXPRESS	Operating Certificate(s) Held:	Commuter Air Carrier (135); On-demand Air Taxi (135)
Operator Does Business As:		Operator Designator Code:	HERA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Dusk
Observation Facility, Elevation:	, 0 ft msl	Distance from Accident Site:	0 Nautical Miles
Observation Time:	0000	Direction from Accident Site:	0°
Lowest Cloud Condition:	Unknown / 0 ft agl	Visibility	20 Miles
Lowest Ceiling:	Broken / 1500 ft agl	Visibility (RVR):	0 ft
Wind Speed/Gusts:	Calm /	Turbulence Type Forecast/Actual:	/
Wind Direction:		Turbulence Severity Forecast/Actual:	/
Altimeter Setting:		Temperature/Dew Point:	
Precipitation and Obscuration:			
Departure Point:	(OOK)	Type of Flight Plan Filed:	Company VFR
Destination:	BETHEL, AK (BET)	Type of Clearance:	None
Departure Time:	1647 AST	Type of Airspace:	Class G

Airport Information

Airport:	TOKSOOK BAY (OOK)	Runway Surface Type:	Gravel
Airport Elevation:	95 ft	Runway Surface Condition:	Snow--compacted
Runway Used:	33	IFR Approach:	None
Runway Length/Width:	1800 ft / 55 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	1 None	Aircraft Damage:	Substantial
Passenger Injuries:	6 None	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	7 None	Latitude, Longitude:	

Administrative Information

Investigator In Charge (IIC):	SCOTT R ERICKSON	Report Date:	04/18/1996
Additional Participating Persons:	ALLEN LEE; ANCHORAGE, AK		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov , or at 800-877-6799. Dockets released after this date are available at http://dms.nts.gov/pubdms/ .		

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