



National Transportation Safety Board Aviation Accident Final Report

Location:	Anchorage, AK	Accident Number:	ANC06FAMS1
Date & Time:	07/28/2006, 2037 AKD	Registration:	N57096
Aircraft:	Aero Commander 690A	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	3 Fatal
Flight Conducted Under:	Part 91: General Aviation - Other Work Use		

Analysis

The crew of the missing airplane was conducting a local area familiarization flight under Title 14, CFR Part 91. At the time of the flight, visual meteorological conditions prevailed, with occasional moderate turbulence forecast for the area. The airplane was routinely contracted for animal and bird counts, and the flight was to include low level flight simulating such a mission. The three occupants of the airplane were the pilot, company check pilot, and another company pilot riding along as a passenger. Both the pilot and the check pilot held airline transport certificates, and were experienced in the make and model of the accident airplane. The airplane was equipped with a satellite position reporting device that updated position, groundspeed, and altitude every 2 minutes. Radar and GPS track information indicated the accident airplane was flying low and slow along a peninsula coast over a saltwater inlet, and turned toward the center of the inlet. The track stopped about 3 miles offshore. The data indicated that while flying along the inlet, the airplane descended to 112 feet above ground level (water), and climbed as high as 495 feet, which was the airplane's altitude at the last data point. The airplane's groundspeed varied between 97 and 111 knots. The area of the presumed crash site experiences extreme tides and strong currents, with reduced visibility due to a high glacial silt content. An extensive search was conducted, but the airplane and its occupants have not been located. An examination of the airplane's maintenance logs did not disclose any unresolved maintenance issues.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Undetermined; the airplane and its occupants are missing.

Findings

Occurrence #1: MISSING AIRCRAFT

Phase of Operation: UNKNOWN

Findings

1. TERRAIN CONDITION - WATER
2. (C) REASON FOR OCCURRENCE UNDETERMINED

Factual Information

HISTORY OF FLIGHT

On July 28, 2006, about 2037 Alaska daylight time, an Aero Commander 690A airplane, N57096, is presumed to have crashed about 23 miles west-southwest of Anchorage, Alaska. Neither the airplane nor its three occupants have been located. The airplane was being operated by Commander Northwest, Anchorage, as a visual flight rules (VFR) orientation flight under Title 14, CFR Part 91, when the accident occurred. The airplane is presumed to have been destroyed, and the three occupants are presumed to have received fatal injuries. Visual meteorological conditions prevailed at the point of departure, and company flight following procedures were in effect. The flight originated at the Ted Stevens Anchorage International Airport, Anchorage, about 1900.

During a telephone conversation with the National Transportation Safety Board (NTSB) investigator-in-charge (IIC), on July 29, the FAA duty officer at the Alaska Regional Operations Center (ROC), said the airplane was missing, and the subject of an alert notice.

Local, ground-based radar information received from the Air Force Rescue Coordination Center (AFRCC) located on Fort Richardson, Anchorage, indicated that the last radar position of the airplane was over the ocean waters of Cook Inlet. The airplane was equipped with a satellite position reporting device, and track data provided to the NTSB by the operator, indicated the last known position of the airplane to be near the same location as indicated by the radar information, north latitude 61:01.48, and west longitude 150:37.07.

According to director of operations for the company, the purpose of the flight was for the local company check pilot to oversee a routine area familiarization flight for the pilot, and for him to gain additional experience flying the airplane from the left seat. The pilot was already experienced in the make and model of the accident airplane, and had passed a 14 CFR Part 135 check flight in May 2006. The airplane was typically operated as an on-demand passenger/cargo flight under Title 14, CFR Part 135, and was often chartered by game management agencies for the purpose of animal and bird counts. The director said the flight profile often included flying relatively low and slow along the coastline to facilitate these activities, and the accident flight was to include familiarization with this type of flying. The operator has an internal Low Level Flight Operations Guide, and conducts training for its flight crews. A third company pilot was aboard as a passenger.

The satellite tracking equipment on the airplane utilized a global positioning system (GPS) to ascertain its position, altitude, and groundspeed, which was transmitted to a satellite every two minutes. The information was then relayed to a monitoring station. The track information indicated that the accident airplane departed Anchorage, went south across Turnagain Arm (a saltwater arm off Cook Inlet), then southwest to the Kenai Airport, Kenai, Alaska. The track shows the airplane departed the Kenai area, flew northeast to the coastline, and along the north shore of the Kenai Peninsula and Cook Inlet. The track continued northeast along the coastline toward Anchorage for about 20 miles, then abruptly turned north toward the center of Cook Inlet. The track stops about 3 miles offshore. On the northeast leg (toward Anchorage), data indicates the airplane descended as low as 112 feet above ground level (water), and climbed as high as 495 feet, which was the altitude recorded at the last data point. The highest airspeed reported during that segment of the flight was 111 knots. The lowest airspeed reported was 97 knots, and the airspeed reported at the last data point was 99 knots.

The occupants of a fishing boat on the Cook Inlet reported seeing the accident airplane flying northeast bound, low along the coastline. They said the airplane drew their attention because it is common to see small single-engine airplanes flying low along the coast, but they were surprised to see a twin-engine turboprop. They said the airplane did not appear to be in any difficulty, and it proceeded along the coast.

An extensive search was conducted, and as of February 2007, the airplane and its occupants have not been located.

INJURIES TO PERSONS

The three persons aboard the airplane are presumed to have sustained fatal injuries.

DAMAGE TO AIRCRAFT

The last known position of the airplane, as reported by the on-board satellite equipment, was over a saltwater inlet, which is about 17 miles wide with one prominent island. No pieces or parts of the airplane have been located or recovered. Damage to the airplane is unknown, but it is presumed to be destroyed.

PERSONNEL INFORMATION

The following information was taken from the operator's airman flight records. Based on the intent of the flight as described by the operator, the pilot is presumed to have occupied the left seat. The check pilot is presumed to have occupied the right seat, and the pilot-rated passenger a seat in the aft cabin.

The pilot held an airline transport certificate with ratings for single-engine land airplane, multi-engine land airplane, and instrument airplane. He had accumulated about 4,600 total hours of flying experience, with about 900 of those hours in the make and model of the accident airplane. He was issued an FAA Class 1 medical certificate in November, 2005. He successfully completed a Part 135 check ride on May 16, 2005.

The check pilot held an airline transport certificate with ratings for single-engine land airplane, multi-engine land airplane, instrument airplane, and had accumulated about 8,950 total hours of flying experience, with about 2,325 of those hours in the same make and model as the accident airplane. He was issued an FAA Class 2 medical certificate in February, 2006. He successfully completed a Part 135 check ride on March 13, 2006.

AIRCRAFT INFORMATION

The airplane was a 1973 model year, Aero Commander model 690A, powered by two Garrett, TPE-331-5-251K, turboprop engines. According to maintenance log books, the airplane had accumulated about 11,340 operational hours, and was maintained under a manufacturer's approved inspection program. An examination of the airplane's maintenance records disclosed no unresolved maintenance issues. The final logbook entry was made on July 28, and indicated a Hobbs meter reading of 7,560 hours.

METEOROLOGICAL INFORMATION

The accident is believed to have occurred at 2037, during daylight hours. The weather

observation taken at the Ted Stevens Anchorage International Airport, Anchorage, which is about 23 miles east-northeast of the airplane's last known location, reported 10 miles visibility, winds 260 degrees at 7 knots, Altimeter setting 30.08, and sky condition as 3 broken layers of clouds. The lowest broken layer of clouds was 10,000 feet above mean sea level (msl). The area weather forecast included isolated moderate turbulence below 10,000 feet msl.

COMMUNICATIONS

There were no communications received from the accident airplane.

WRECKAGE AND IMPACT INFORMATION

The presumed crash site is the Cook Inlet, a saltwater inlet off the Gulf of Alaska. According to nautical charts, at the last known location of the airplane, the water is less than 100 feet deep during mean low tide. The several rivers that terminate at the inlet are glacier fed, and visibility in the water is often less than 1 foot due to glacial silt. The Inlet is an area with strong tidal influence, and strong currents.

MEDICAL AND PATHOLOGICAL INFORMATION

The occupants have not been recovered, and no medical or pathological information is available.

Pilot Information

Certificate:	Airline Transport	Age:	39, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Left
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	No
Medical Certification:	Class 1 With Waivers/Limitations	Last FAA Medical Exam:	11/01/2005
Occupational Pilot:		Last Flight Review or Equivalent:	05/01/2006
Flight Time:	4600 hours (Total, all aircraft), 4600 hours (Pilot In Command, all aircraft)		

Check Pilot Information

Certificate:	Airline Transport; Flight Instructor	Age:	53, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	Seat Occupied:	Right
Other Aircraft Rating(s):	None	Restraint Used:	
Instrument Rating(s):	Airplane	Second Pilot Present:	Yes
Instructor Rating(s):	Airplane Multi-engine; Airplane Single-engine	Toxicology Performed:	No
Medical Certification:	Class 2 With Waivers/Limitations	Last FAA Medical Exam:	02/01/2006
Occupational Pilot:		Last Flight Review or Equivalent:	03/01/2006
Flight Time:	9200 hours (Total, all aircraft), 8950 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Aero Commander	Registration:	N57096
Model/Series:	690A	Aircraft Category:	Airplane
Year of Manufacture:		Amateur Built:	No
Airworthiness Certificate:	Normal	Serial Number:	11120
Landing Gear Type:	Retractable - Tricycle	Seats:	7
Date/Type of Last Inspection:	06/01/2006, AAIP	Certified Max Gross Wt.:	11000 lbs
Time Since Last Inspection:	44 Hours	Engines:	2 Turbo Prop
Airframe Total Time:	11340 Hours as of last inspection	Engine Manufacturer:	Garrett
ELT:	Installed, not activated	Engine Model/Series:	TPE-331-5-251
Registered Owner:	Commander Northwest	Rated Power:	717 hp
Operator:	Commander Northwest	Operating Certificate(s) Held:	None
Operator Does Business As:	Commander Northwest Leasing LLC	Operator Designator Code:	CMAA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	Condition of Light:	Day
Observation Facility, Elevation:	PANC, 150 ft msl	Distance from Accident Site:	15 Nautical Miles
Observation Time:	1953 ADT	Direction from Accident Site:	220°
Lowest Cloud Condition:	Clear	Visibility	10 Miles
Lowest Ceiling:	Broken / 10000 ft agl	Visibility (RVR):	
Wind Speed/Gusts:	7 knots /	Turbulence Type Forecast/Actual:	/
Wind Direction:	260°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30.08 inches Hg	Temperature/Dew Point:	16° C / 11° C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Kenai, AK (PAEN)	Type of Flight Plan Filed:	Company VFR
Destination:	Anchorage, AK (PANC)	Type of Clearance:	None
Departure Time:		Type of Airspace:	

Wreckage and Impact Information

Crew Injuries:	2 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:	1 Fatal	Aircraft Fire:	None
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	3 Fatal	Latitude, Longitude:	61.030000, -150.618611

Administrative Information

Investigator In Charge (IIC):	Lawrence R Lewis	Report Date:	04/25/2007
Additional Participating Persons:	Herbert H Herzog; Anchorage FSDO-03; 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/ .		

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report. A factual report that may be admissible under 49 U.S.C. § 1154(b) is available [here](#).