Aviation Investigation Final Report

Location:	ILIAMNA, Alaska	**Accident Number:**	ANC00FA024
Date & Time:	February 5, 2000, 16:00 Local	**Registration:**	N756HG
Aircraft:	Cessna U206G	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	6 Fatal
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The airplane impacted level terrain, covered by smooth, wind-blown, snow, in a left bank of 26 degrees or greater. The leading edge of the first impact crater was angled 15 degrees below the horizon. The area surrounding the wreckage for about one mile was featureless, snow-covered, tundra. Beyond one mile, were rising hills with areas of exposed vegetation. Visible and infrared satellite images displayed a band of bright cloud tops and thick clouds, which traversed the flight path of the accident airplane between the departure airport, 27 miles to the east, and the accident site. Similar reflective images existed over a weather reporting station with visibility of one mile in light snow and mist, and overcast ceilings of 1,100 feet. The airplane's heading at the time of impact was in the direction of the departure airport. The GPS receiver was providing navigation information to the original destination at the time of impact. The airplane was equipped with basic flight instruments, and the pilot was required by the company to demonstrate his ability to control the airplane by reference to those instruments. No evidence of any preimpact mechanical anomaly was discovered with the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's attempted flight into adverse weather, and his failure to maintain altitude/clearance above the snow-covered tundra. Factors associated with the accident were snow, rain, and whiteout conditions.

Findings

Occurrence #1: IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation: CRUISE

Findings
1. (C) FLIGHT INTO ADVERSE WEATHER - ATTEMPTED - PILOT IN COMMAND
2. (F) WEATHER CONDITION - WHITEOUT
3. (F) WEATHER CONDITION - SNOW
4. (F) WEATHER CONDITION - RAIN

Occurrence #2: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: MANEUVERING - TURN TO REVERSE DIRECTION

Findings
5. TERRAIN CONDITION - TUNDRA
6. (F) TERRAIN CONDITION - SNOW COVERED
7. (C) ALTITUDE/CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On February 5, 2000, about 1600 Alaska standard time, a wheel equipped Cessna U206G airplane, N756HG, was destroyed when it collided with terrain, at 59 degrees, 44.17 minutes north latitude, 155 degrees, 56.23 minutes west longitude, approximately 27 miles west of Iliamna, Alaska. The commercial pilot and the five passengers on board were fatally injured. The flight was operated by Iliamna Air Taxi, Inc., of Iliamna, under 14 CFR, Part 135, as an on-demand air taxi flight. The flight departed from Iliamna at 1531 for Koliganek, Alaska. Visual meteorological conditions prevailed at both the origin and destination at the time of the accident, and a VFR flight plan was in effect.

The flight was considered overdue by the company at 1755. A search was commenced by the company at 1815, and by the Alaska National Guard at 1835. Sunset in the area was about 1800. No emergency locator transmitter signal was received. The airplane was located at 1317 on February 6, in an area of level terrain, covered by about four feet of smooth, wind blown, snow. The terrain within about one mile of the wreckage site was without vegetation and featureless. Beyond one mile were rising hills, with areas of exposed vegetation.

INJURIES TO PERSONS

All six persons on board the airplane were fatally injured.

DAMAGE TO AIRCRAFT

The airplane was destroyed by impact forces.

PERSONNEL INFORMATION

The pilot held a U.S. commercial pilot certificate issued on July 19, 1988. His most recent U.S. second-class medical certificate was issued on April 9, 1999, with the requirement for corrective lenses. He held an airframe and powerplant mechanic certificate issued on March 31, 1987.

The pilot was hired by Iliamna Air Taxi, Inc., on April 29, 1998, and worked as both a pilot and mechanic. He lived in Iliamna. He completed initial training, and was assigned to fly the Cessna 207, on June 30, 1998. On December 6, 1999, the pilot completed pilot-in-command checks in the Cessna 206.

The pilot had about 50 hours experience in the Cessna 206 at the time of the accident.

On each of the pilot's 14 CFR 135.293, and 135.299 Airman Competency / Proficiency Checks, it was noted that the pilot demonstrated "Basic Instrument Competency." In addition, each company Certificate of Flight Training included the following items: "(3) Flight under simulated instrument conditions," and "(8) Flight under simulated IFR conditions using each kind of navigational and approach facility used in normal operation."

Flight and Duty Time

On the day of the accident, the pilot's estimated total experience was 2,990 flight hours.

In the 24 hours prior to the accident, the pilot had flown 5 hours. He completed his flights about 1100 on the day prior to the accident, and went home from work about 1700. He was off duty for 15 hours prior to reporting to work the morning of the accident.

The pilot had flown 10.7 hours in the previous 7 days, and 54 hours in the previous 30 days.

The pilot's normal workday during the winter months was from 0830 to 1700. He was also employed as a mechanic by the operator, and when not assigned flight duties, was assigned maintenance work.

The pilot was described as physically active, and did not use tobacco or alcohol products. He was a salaried employee, not paid on the basis of completion of flights.

AIRCRAFT INFORMATION

The airplane was manufactured in 1978. It was equipped with a Teledyne Continental IO-520 engine, an external baggage pod mounted under the fuselage, and a Robertson Short Takeoff and Landing (STOL) kit. The airplane was configured to carry one pilot and five passengers at the time of the accident.

The airplane was maintained on a 100-hour/annual inspection schedule. 88 hours had elapsed since the most recent 100 hour / annual inspection on June 23, 1999. A review of maintenance records revealed no preexisting anomalies at the time of the accident.

The allowable maximum weight of the airplane was 3,600 pounds. The NTSB investigator-in-charge (IIC) estimated the total gross weight at the time of the accident to be 3,500 pounds.

Required Equipment

All equipment required by 14 CFR Part 91.205, 207, 209, and 135.149, 159, and 161, was installed on the accident airplane.

The company was authorized to operate the airplane in day and night VFR conditions. 14 CFR

Part 135.159, Equipment Requirements: Carrying Passengers Under VFR At Night, states, in part: "No person may operate an aircraft carrying passengers under VFR at night...unless it is equipped with- (a) A gyroscopic rate-of-turn indicator... (b) A slip skid indicator (c) A gyroscopic bank-and-pitch indicator. (d) A gyroscopic direction indicator..."

METEOROLOGICAL INFORMATION

The nearest official weather reporting station to the accident site is located at the Iliamna Airport.

The terminal forecast for the Iliamna Airport called for 1,500 feet scattered, 3,500 feet overcast, and six miles visibility, with temporary conditions of three miles visibility in light rain and snow showers, and 1,500 feet overcast ceilings

The weather observation at the Iliamna airport, at 1553, was ceiling 3,200 feet overcast, 10 miles visibility, temperature 38, dew point 32, winds 140 degrees at seven knots.

The weather observation at the Iliamna airport, at 1653, was 3,400 feet overcast, 10 miles visibility, winds 180 degrees at five knots.

The Area Forecast for the Bristol Bay area, valid until 0100 Alaska standard time, the evening of the accident was, in part: "scattered 1,500 feet, broken 4,500 feet, broken 8,000 feet. Occasional broken to overcast 1,500 feet, four miles visibility in light snow showers and light rain showers. Isolated ceilings below 1,000 feet, and visibility below three miles."

An NTSB senior meteorologist received visible and infrared satellite data from the GOES-10 (Geostationary Operational Environmental Satellite-10) valid at 1545, and 1600, for the accident area. These visible and infrared images showed a band of bright cloud tops, and high levels of reflected solar energy (thick clouds), which extended north-northwestward from Kodiak Island, and traversed the flight path of the accident airplane between Iliamna and the accident site.

At the same time as these observations, similar energy reflective images existed for the area of Dillingham, Alaska. Dillingham is approximately 96 miles west-southwest of the accident site. At 1552, the weather observation at Dillingham was: visibility one mile in light snow and mist, ceilings 1,100 feet overcast.

The company Operation Specifications, paragraph A010, Aeronautical Weather Data, stated in part: "For VFR operations, the pilots own weather observations, or those of another competent observer may be used when approved sources are not available."

Official sunset at the accident location was 1749. The end of evening civil twilight was 1835.

AIDS TO NAVIGATION

The airplane was equipped with a Bendix-King KLN-89B global position system (GPS) receiver, a Bendix-King KX-155 VHF Omnidirectional Range (VOR) receiver, and an Automatic Direction Finder (ADF) receiver.

The KLN-89 GPS was tested at Bendix-King's facility in Olathe, Kansas, under the supervision of an FAA avionics inspector from the Kansas City, Missouri, Flight Standards District Office (FSDO). This inspection and data extraction revealed that the GPS was selected to navigate from the airplane's present position to Koliganek. The present position retained in nonvolatile memory in the KLN-89 is updated every 60 seconds. The present position of the airplane last recorded in nonvolatile memory was 59 degrees 44.17 minutes north latitude, 155 degrees 56.34 minutes west longitude. This position is less than 1/2 mile on a bearing of 245 degrees magnetic from the accident site. It could not be determined how many seconds (from one to 60) prior to the impact that this last position was recorded.

The VOR frequency selected was 112.8 MHz (King Salmon, Alaska), and the standby frequency was 116.4 MHz (Dillingham).

COMMUNICATIONS

The airplane was equipped with a Bendix-King KX-155 communication radio. The radio was tested at the manufacturer's facility under the supervision of an FAA avionics inspector from the FAA Kansas City FSDO. The communication frequency displayed for use in the radio at the time of the accident was 125.6 MHz, and the standby frequency was 122.9 MHz.

At 1529 the pilot of N756HG contacted Kenai Flight Service Station on the radio and filed a VFR flight plan from Iliamna to Koliganak. At 1530, the pilot of N756HG activated his flight plan

At 1754 on February 5, the FAA Kenai AFSS specialist on duty placed a telephone call to the operator. He said they were looking for N756HG, and that he was 25 minutes overdue on his flight plan. The company president responded that the company was beginning to look also, and was about to fly the route. Kenai asked if the company would like to extend the flight plan. The president responded yes, about 30 minutes.

The company radio log has the following entries:

6:15 "Tim Left" 6:25 "Called RCC 800 420-7230 re: overdue" 6:35 "10 min past last due time" 6:45 "Army Guard helicopter disp"

No radar coverage is available in the area of the accident, or along the proposed route of flight.

WRECKAGE AND IMPACT INFORMATION

The NTSB IIC, a representative of the FAA, Cessna, and Teledyne Continental Motors, and two Alaska State Troopers, began the on-site investigation about 1100 on February 8. The temperature at the time the NTSB IIC arrived on scene was about 38 degrees Fahrenheit. No snow or ice was adhering to the wreckage. A review of photographs taken by company and National Guard personnel about 1400 on February 6 revealed no snow or frozen precipitation adhering to the airplane or wreckage.

The airplane's fuselage and cabin came to rest about the 695 feet msl level of the Stuyahok River drainage. The surface consisted of smooth, soft, snow. A single linear gouge in the snow, measuring 37 feet long, lead up to the first impact crater. This linear gouge was oriented on a heading of 100 degrees magnetic, and contained the left wingtip, a red position light lens, and the left wingtip strobe assembly. No other marks were visible in the snow prior to the leading edge of the first crater.

The minimum angle of bank at which the left wingtip can contact a level surface without the left wheel or belly pod making contact is 26 degrees.

The debris field was oriented along a main axis of 070 degrees magnetic, and extended in a linear pattern for a distance of 274 feet. The leading edge of the first crater was angled between 10 and 15 degrees below the horizon. This crater measured 12 feet long, 7 feet wide, and 3 feet deep.

Debris was distributed 40 feet to the right, and 40 feet to the left of the centerline of the debris path. The propeller separated from the engine, and was located 10 feet to the right of the debris path centerline, 214 feet from the initial impact gouge. All three blades displayed torsional twisting, and forward bending.

The engine was partially broken free of its mounts. Oil was smeared in the snow from the location of the propeller, to the location of the main wreckage and engine. No evidence of streaming oil was seen on the inside or outside of the fuselage or engine cowl.

No preaccident fuel system anomalies were noted. Both wing fuel tanks remained intact, and both contained about 20 gallons of a blue fluid, which smelled and felt like gasoline.

The airplane was airlifted from the accident site, to a hangar in King Salmon, Alaska, on February 9 and 10, for detailed inspection. Continuity of flight controls was established from all flight control surfaces to the cockpit.

No preimpact mechanical anomalies were found.

MEDICAL AND PATHOLOGICAL INFORMATION

A postmortem examination was performed on the pilot by the Alaska State Medical Examiner, 5700 East Tudor Avenue, Anchorage, Alaska, on February 7, 2000. The cause of death was

noted to be blunt impact injuries.

Toxicological samples were tested at the FAA Civil Aeromedical Institute (CAMI), Oklahoma City, Oklahoma, on March 20, 2000. A glucose level of 165 (mg/dl) was detected in the pilot's urine. According to the CAMI report, urine glucose levels above 100 mg/dl are considered abnormal.

Glucose may be produced as a physiologic stress response, regardless of consciousness. The autopsy performed on the pilot indicated that he had extensive head injuries, and remained alive for a short time after the impact. A review of medical records from physicians who had previously treated the pilot revealed no evidence of preaccident impairing anomalies.

SURVIVAL ASPECTS

Emergency Locator Transmitter (ELT)

The ELT did not radiate a signal. The Alaska State Troopers who first arrived at the accident site confirmed the ELT was selected to the "ARM" position. The ELT had broken free from the right side of the airplane and was found loose in the aft baggage area. The ELT remained secured to the factory provided mounting tray by two quick release straps. The four rivets, which attached the mounting tray, had pulled out of the aircraft structure.

The company had removed and reinstalled the ELT assembly during a recent rebuild of the airplane. The new installation of the ELT consisted of aluminum angles attached to primary aircraft structure, to which the mount tray was riveted. According to the mechanic who reinstalled the ELT in the airplane, the ELT mounting tray was already riveted to the angle bracket by the four rivets which pulled out. After the airplane was rebuilt from a previous accident, he riveted the angle bracket to the new angles and primary structure. The mechanic and owner stated that they did not know who installed the four failed rivets.

The ACK Technologies, Inc., Model E-01 Installation Manual, specifies that the mounting tray be installed using 6-32 screws, flat washers, and nylock nuts. It also states that a doubler plate may be required, and that the tray be mounted to load carrying structure, "not aircraft skin." It states that deflection of not more than 0.1 inch is allowed when a load of 100 pounds is applied to the mounting tray.

Examination of the ELT mounting bracket by NTSB materials laboratory technicians on May 9, revealed all four failed rivets exhibited bucking process expansion to only 180 degrees of their respective circumferences. It was also noted that the airframe structure to which this bracket was mounted did deform slightly prior to the four rivets pulling through. No prexisting cracks were noted.

The coaxial ELT antenna cable was severed about 18 inches from the ELT, and the remote cockpit control cable was pulled free of the ELT housing. The ELT was sent to the

manufacturer for disassembly and testing under supervision of the FAA.

Cabin Survivability

The cabin did not collapse, and the internal volume of the cabin was not compromised. Both the forward left door, and the right cargo door came open.

The cargo net located behind the rear seat passengers was in place. The airplane's survival kit was contained in a rectangular metal can and was normally restrained by a cargo net. The net was torn, and the can was found loose in the cabin.

The front seat occupants were both found restrained in their respective seats by seatbelts and shoulder harnesses.

The passenger seat restraints appeared weathered and worn. One of the passenger restraints failed at the webbing. A second failed at the stitching. Ultimate load testing of the passenger seatbelts performed under the direction of NTSB materials laboratory technicians, revealed the seatbelt webbing sustained loads in excess of the required 1,500 pounds minimum. See attachment for additional information.

The passenger seated in the left-center seat was ejected, and found under the left wing.

Search and Rescue

At 1850, the airplane was declared overdue by the FAA. At 1905, Information Request (INREQ) procedures were commenced, looking for the airplane. An Alert Notice (ALNOT) was issued for the overdue airplane at 1921.

The company Operations Manual, paragraph 503 Aircraft Flight Release/Flight Locating Procedures states in part: "After an aircraft is overdue for one (1) hour, the operations agent will (a), attempt to locate the aircraft by backtracking the flight; (b) contact the Director of Operations or Chief Pilot... and (c) notify the nearest FAA Flight Service Station (FSS). Attempt will be made to contact the overdue aircraft as to determine his position, revised ETA, or change of intentions. If no contact is made, an aircraft will be dispatched to cover the filed route of flight in an attempt to locate the aircraft."

A review of company logs, and FAA air traffic tapes revealed the FAA began looking for the overdue airplane within 30 minutes of the time the flight plan expired. At the time the FAA contacted the company, the company had already commenced search procedures.

TESTS AND RESEARCH

A review of the seat configuration log found in the airplane revealed that the pilot did not document the seat configuration change he performed in Iliamna immediately prior to

departing on the accident flight. The last noted tachometer time was 5,453.1 hours, when the seat configuration was changed in Kakhonak, Alaska, to accommodate passengers being transported to King Salmon, Alaska, the morning of the accident. The airplane flew from Kakhonak, to King Salmon, to Port Alsworth, Alaska, and back to Iliamna. In Iliamna, the pilot altered the seat configuration to seating for six occupants. The tachometer time read 5,454.9 hours at the accident site. The elapsed time from Kakhonak was 1.8 hours. The linear distance along the route of flight is 260 miles. The charted cruise true air speed (KTAS) at the ambient conditions for the time of the accident is 127 knots.

The pilot fueled his own airplane from the company's fuel tank in Iliamna immediately prior to departing on the accident flight. A fuel sample drawn from the tank by an Alaska State Trooper the day following the accident revealed no anomalies.

The engine was partially disassembled in a hangar at King Salmon on February 9, and February 10. The disassembly and inspection were supervised by the NTSB IIC. Present at the disassembly were the FAA, and technical representatives of Cessna, and Continental Motors. No mechanical anomalies were noted. All six cylinders produced compression, and the entire drive train appeared intact.

The propeller was disassembled at the Hartzell Propeller, Inc., factory, Piqua, Ohio on April 4, 2000, under the direction of an NTSB investigator. Also present was a representative from Cessna, a representative from Continental Motors, and a technical representative of Hartzell. Multiple impact marks were noted on each blade. The number one blade had a single impact mark on its hub at a five degree commanded pitch angle. The number two blade had three marks between 21 degrees and 25 degrees, and another at four degrees. The number three blade had marks at 25 degrees, 13 degrees, and 10 degrees. According to the representative of Hartzell Propeller, Inc., blade angles above 20 degrees are commanded by the propeller governor to maintain engine rpm when power is applied to the propeller.

The ACK Technologies, Inc, ELT model ELT-01, was inspected and tested at the manufacturer's facility on March 14, under the supervision of an FAA avionics inspector from the San Jose, California, Flight Standards District Office (FSDO). This test revealed the 5V LM7805 regulator on the internal circuit board was burned out. Once this regulator was replaced, the unit operated and radiated a signal. The inspection report states that loose connectors caused an internal short circuit. The connectors were released when the antenna was pulled out of the housing, and resulted in the nonoperation of the ELT. The G-switch, and all other components in the ELT, operated within nominal values.

The fuel pump, fuel controller, and fuel distributor, were removed and bench checked on April 3, 2000, under supervision of an NTSB investigator from the Northwest Regional Office. Each of these components flow tested on a test bench within the manufacturer's normal ranges.

The altimeter was disassembled and inspected at an avionics instrument shop on March 7, by the NTSB IIC, with no preaccident anomalies noted.

The separated propeller flange was inspected at the NTSB materials laboratory on June 22, 2000. No preimpact anomalies were noted.

ADDITIONAL INFORMATION

Company Information

At the time of the accident, the company operated a fleet of single engine airplanes. The company's Operation Specifications authorized single engine IFR operations in the company's turbine powered airplanes.

Company Ground and Flight Training

Flight crew training is affected by several documents: Company Operations Manual, Company Training Manual, Operating Specifications, Federal Aviation Regulations (FARs), and FAA Orders.

A review of the Training Manual syllabus outline revealed the pilot had received all required training. He had demonstrated ability to control the aircraft solely by reference to flight instruments.

Check Airman Procedures

The company president/director of operations functions as the FAA approved check airman.

The company president was questioned by the NTSB IIC regarding the training and use of the gyroscopic pitch-and-bank indicator, and basic aircraft control by reference to instruments. He stated that the company policy was that all pilots would demonstrate the ability to, and maintain proficiency in, control of aircraft by reference to flight instruments. The pilots were also required to periodically execute simulated emergency NDB approaches to Iliamna in visual conditions.

Wreckage release

The airframe and engine were released to the owner's representative on February 10. All pilot and aircraft records, fuel system components, pitot-static system components, and the ELT, were released to the owner's legal representative on May 8, 2000. The GPS and Navigation-Communication radios were returned to the owner's legal representative on August 15, 2000.

Pilot Information

Certificate:	Commercial	**Age:**	48,Male
Airplane Rating(s):	Single-engine land; Single-engine sea	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	April 9, 1999
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	
Flight Time:	2990 hours (Total, all aircraft), 50 hours (Total, this make and model), 2800 hours (Pilot In Command, all aircraft), 164 hours (Last 90 days, all aircraft), 54 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N756HG
Model/Series:	U206G U206G	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	U20604099
Landing Gear Type:	Tricycle	**Seats:**	6
Date/Type of Last Inspection:	July 5, 1999 Annual	**Certified Max Gross Wt.:**	3600 lbs
Time Since Last Inspection:	89 Hrs	**Engines:**	1 Reciprocating
Airframe Total Time:	5455 Hrs	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	IO-520-F56B
Registered Owner:	ILIAMNA AIR TAXI, INC.	**Rated Power:**	300 Horsepower
Operator:		**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:		**Operator Designator Code:**	EONA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Unknown	**Condition of Light:**	Day
Observation Facility, Elevation:	ILI ,207 ft msl	**Distance from Accident Site:**	27 Nautical Miles
Observation Time:	15:53 Local	**Direction from Accident Site:**	68°
Lowest Cloud Condition:	Unknown	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 3200 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	7 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	140°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	29 inches Hg	**Temperature/Dew Point:**	3°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	, AK (ILI)	**Type of Flight Plan Filed:**	Company VFR
Destination:	KOLIGANEK , AK (JZZ)	**Type of Clearance:**	None
Departure Time:	15:31 Local	**Type of Airspace:**	Class G

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:	0	**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	5 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	6 Fatal	**Latitude, Longitude:**	59.849208,-154.559249(est)

Administrative Information

Investigator In Charge (IIC):	Thomas, Matthew
Additional Participating Persons:	TONY A FISCHER(FAA FSDO); ANCHORAGE , AK GREGORY W SCHMIDT(CESSNA); WICHITA , KS ROBERT S BOYLE (CONTINENTAL); ARVADA , CO TOM MCCREARY (HARTZELL); PIQUA , OH
Original Publish Date:	July 17, 2001
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Investigation Class:	Class
Note:	
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