



National Transportation Safety Board Aviation Accident Final Report

Location:	JACKSON, Kentucky	Accident Number:	NYC99FA140
Date & Time:	June 14, 1999, 22:08 Local	Registration:	N2743E
Aircraft:	Sikorsky S-76A	Aircraft Damage:	Destroyed
Defining Event:		Injuries:	4 Fatal
Flight Conducted Under:	Part 91: General aviation - Positioning		

Analysis

The S-76A departed on a positioning flight with two pilots and two medical personnel onboard. Night instrument meteorological conditions prevailed with prevailing visibility less than 1/4 mile. The departure airport was 1,381 feet MSL. After becoming airborne, as it passed through 1,600 feet, the helicopter entered a descending left turn which terminated on the side of a hill, about 1,000 feet elevation. The CVR recorded the pilot calling out the descending turn to the co-pilot who was flying, but the co-pilot did not acknowledge the pilot's call. Additionally, the pilot did not take control of the helicopter from the co-pilot, and he did not acknowledge the co-pilot's comment about a possible gyro failure, or answer the co-pilot's question about the pilot taking control of the helicopter. No evidence of a pre-existing failure or malfunction was found with the helicopter. According to the company operations manual, the minimum visibility for an instrument departure was 1/4 mile. Both pilots had failed upgrades in the preceding year, but had passed their respective 6 month IFR checks with no problems noted.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: the failure of the PIC to adequately supervise the SIC, and maintain a positive climb. Factors were the fog and dark night.

Findings

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

Findings

1. (F) WEATHER CONDITION - FOG
2. (F) LIGHT CONDITION - DARK NIGHT
3. PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND
4. (C) CLIMB - NOT MAINTAINED - PILOT IN COMMAND
5. (C) SUPERVISION - INADEQUATE - PILOT IN COMMAND

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

Findings

6. TERRAIN CONDITION - RISING

Factual Information

HISTORY OF FLIGHT

On June 14, 1999, at 2208 Eastern Daylight Time, a Sikorsky S-76A, N2743E, operated by Petroleum Helicopters Incorporated (PHI), was destroyed when it collided with terrain in Jackson, Kentucky. The two certificated commercial pilots and two medical personnel were fatally injured. Instrument meteorological conditions prevailed for the positioning flight, which had departed from Julian Carroll Airport (JKL), Jackson, Kentucky, and was destined for University of Kentucky heliport (37KY), Lexington, Kentucky. The flight was conducted on an instrument flight rules (IFR) flight plan under 14 CFR Part 91.

The flight crew was on the fourth day of a seven-day rotation when the accident occurred. They had logged on duty at 1100.

According to records recovered at the accident site, the helicopter departed 37KY at 1356, and arrived at JKL at 1426. While at JKL, the pilots and medical crew had access to a lounge area for rest. While on the ground, the helicopter was serviced with 35 gallons of Jet-A with prist. According to the airport manager, the pilots refueled the helicopter.

The pilots had a computer with a direct user access terminal system (DUATS) in their flight lounge, which had been used to check weather and file flight plans.

According to records from the Federal Aviation Administration (FAA), the pilot-in-command (PIC) accessed DUATS three times prior to the accident flight.

The first time occurred at 1912, when the pilot requested an abbreviated weather briefing for the State of Kentucky. He specifically requested aviation routine weather reports (METAR) and aerodrome forecasts (TAF). Included was the data on Lexington, Kentucky (LEX) and JKL.

The second contact occurred at 2005. The pilot filed an IFR flight plan for a direct flight from JKL to the LEX VOR. He did not request any weather data.

The third contact occurred at 2121. Again, the pilot requested an abbreviated weather briefing for the State of Kentucky. He specifically requested METARs, and TAFs. The JKL weather included winds calm, visibility 1/2 mile, sky obscured, vertical visibility 100 feet, weather fog, temperature and dewpoint 18 C. The LEX weather was visibility 10 miles, sky clear below 12,000 feet, temperature 24 C, and dewpoint 18 C.

The airport manager observed the flight crew walk to the helicopter. He reported that visibility was reduced by fog and he could not recognize the pilots, but only saw vague shapes as they boarded the helicopter.

At 2154:31, the flight crew checked the JKL automated surface observation system (ASOS). The helicopter was equipped with a cockpit voice recorder (CVR). According to the CVR

transcript, the weather recorded by the CVR was:

"...Carroll airport Jackson Kentucky. automated weather observation, zero one five four zulu, visibility less than one quarter, fog, sky condition overcast two hundred, temperature one eight Celsius, dewpoint one eight Celsius, altimeter three zero zero six, remarks density altitude one thousand niner hundred...."

Following the weather, which was played through several times, the flight crew proceeded to prepare for an instrument departure. No comments were recorded about the visibility being less than 1/4 mile.

The flight crew made initial radio contact with Indianapolis Air Traffic Control Center, Hazard Radar (AZQ), and at 2159:51, AZQ transmitted, "november ah seven two seven four three echo, you're cleared ah to lexington from julian carroll as filed, climb and maintain four thousand, squawk four two six two, contact indy center on this frequency on departure, and clearance is void if not off by zero two...one zero if not off by zero two one zero then advise center no later than one five of intentions." This was acknowledged and read back by the flight crew.

A certified weather observer at the National Weather Service facility at JKL observed the takeoff and reported:

"...When they rolled onto the runway I walked out to watch them takeoff. At the runway/taxiway intersection, they turned left for runway 19 and pulled up into a hover about 20 feet above the runway. They then proceeded down runway 19. I lost them in the fog about halfway between the taxi/runway intersection and the end of the runway. As a certified weather observer I concur with the ASOS visibility of [less than] <1/4 mile. I estimate that the visibility was about 1/8 of a mile or slightly more...."

At 2205:51, the CVR recorded the pilot-in-command (PIC) transmitting on UNICOM frequency, "...we'll be a uh... south departure right turn we, be uh west out of the area." The airport manager acknowledged this.

At 2206:18, the CVR recorded the second-in-command (SIC) on interphone, "I'm gonna lift to a hover, and we'll un get sixty knots before we get solid in it I guess. Try to keep it within the lights down here." The PIC acknowledged this.

At 2206:51, the PIC stated, "airspeed's alive, positive rate of climb.", and the PIC subsequently said, "your at thirty [knots]", and then "heading one nine zero." This was followed by the PIC stating, "I'm gonna kill the landing...[lights]." The SIC acknowledged this.

At 2207:22, the CVR recorded the PIC on interphone, "and you're at eighty... wanna hold eighty. Or Vbroc [Velocity best rate of climb] rather." The SIC acknowledged this.

At 2207:32, the PIC transmitted, "indy center sikorsky ah two seven four three echo we're ah passing one thousand six hundred for four thousand." AZQ replied, "november two seven four three echo indy center roger, and ah understand climbing to four thousand say altitude leaving.", to which the PIC replied, "one thousand six hundred for ah four thousand." This

transmission was acknowledged by AZQ.

At 2207:51, the PIC was heard to say, "go ahead and stay on your heading.", after which two unidentified intercom transmissions were recorded, "alright.", and then, "its ok, you got five hours."

At 2208:03, the PIC stated, "ok your in a right hand turn and descending." There was no acknowledgement from the SIC.

At 2208:05, the SIC stated, "ok I think my gyro just quit." There was no acknowledgement from the PIC.

At 2208:10, the SIC asked, "you have the controls?" There was no acknowledgement from the PIC.

At 2208:11, the PIC stated, "you're in a left hand turn and descending...turn turn back and level level us off. There was no acknowledgement from the SIC.

At 2208:16, the CVR recorded an increase in ambient noise level through the microphone-summing amplifier.

At 2208:18, the PIC stated, "right hand turn.....right hand turn." There was no acknowledgement from the SIC.

At 2208:24, the CVR recorded the initial sound of impact and ceased operation.

A witness located near the accident site reported:

"The sky was foggy...I heard a helicopter coming, it sounded different than normal. I was outside and tried to see it but did not see any lights. Next the sound shifted as it went behind the hill. I then heard a pop in the distance. I knew what happened and jumped in my jeep to go and call 911. It was about 30 to 45 seconds into my trip, about 1/8 of a mile I saw the explosion to my left. I continued and called 911."

In a follow-up interview conducted by a FAA Inspector, the witness explained the helicopter sounded different because it was at a lower than normal altitude.

The accident occurred during the hours of darkness at 37 degrees, 33.945 minutes north latitude, and 83 degrees, 17.462 minutes west longitude.

PERSONNEL INFORMATION

Pilot-In-Command

The PIC held a commercial pilot certificate with rotorcraft-helicopter and instrument helicopter ratings. He was last issued a second class airman medical certificate on January 2, 1999, with a limitation to carry corrective lenses for near vision.

According to employment records from PHI, the pilot had received his initial rotorcraft flight training in the US Army, and was employed by PHI on October 27, 1984. His total flight experience was 6,859 hours, with 2,319 hours in the S-76A. His total instrument flight experience of 382 hours, which included 111 hours in simulators, and 39 hours of actual instrument time.

The PIC's initial checkout in the S-76A was as a SIC in February 1990, with no problems noted. On March 29, 1996, during a 6 month recurrent instrument flight check, one item, Stabilized Approach Concept, was marked U/S. The form noted that the pilot failed to call for a missed approach with the airspeed 25 knots slow. On September 8, 1996, he was upgraded to PIC on the S-76A with no problems noted. On March 30, 1997, the PIC failed a 6-month recurrent instrument flight check. He was rated unsatisfactory in the following areas; use of checklists; emergency procedures; flight planning; ILS approaches; VOR approaches; and missed approach. He took another checkride on March 31, 1997, and passed all items. He subsequently passed checkrides on September 26, 1997, and April 11, 1998, with no problems noted.

The PIC had been in Cleveland, Ohio, and elected to return to Gulf of Mexico flight operations. He transferred to Lafayette, Louisiana, and received offshore training in the S-76A. While there, he received training in the Bell 412, and took a checkride on June 21, 1998. The flight check form showed all areas satisfactory. However, the form also noted that he was only qualified as a SIC, and not as a PIC for the Bell 412. The training form noted several areas of deficiency found during the training. The PIC re-qualified in the S-76A on September 5, 1998, and subsequently transferred to Lexington on October 9, 1998, as a PIC. He took a 6-month instrument flight check on February 8, 1999 with no problems noted.

A review of the PIC's training file with copies of all checkrides from date of employment to date of accident revealed no other discrepancies.

Second-In-Command

The SIC held a commercial pilot certificate with airplane, single and multi-engine land, and rotorcraft helicopter ratings. In addition, he held an instrument rating for airplanes and helicopters. He also held a flight instructor certificate (expired) for single engine land airplanes, and a mechanic certificate with airframe and powerplant ratings. He was last issued a first class airman medical certificate on August 14, 1998. His total flight experience was 7,739 hours with 6,574 hours in helicopters. His total instrument flight experience was 181 hours, which included 92 hours of actual instrument time. He had passed his last instrument flight check on February 7, 1999.

According to employment records from PHI, he was initially hired as a mechanic in 1976. He then participated in a company upgrade program to transition to a pilot. He started flying the Bell 206 in 1982, and subsequently left the company in 1987. He returned to PHI as a pilot on February 23, 1990.

The SIC's initial checkout in the S-76A occurred on May 17, 1997. The upgrade and two

subsequent 6-month instrument flight checks, September 27, 1997, and April 4, 1998 were accomplished with no problems noted. On May 30, 1998, the SIC took a PIC checkride in the S-76A. He failed the oral exam and the flight check was not conducted. According to training records, he was weak in several areas related to instrument procedures and flight planning. He took another oral exam on June 1, 1998, and re-qualified in the S-76A as a SIC. He then transferred from Cleveland, Ohio, to Lexington on October 12, 1998. He passed 6-month instrument flight checks on September 16, 1998, and February 7, 1999, with no problems noted.

A review of the SIC's training file with copies of all checkrides from date of employment to date of accident revealed no other discrepancies.

Interviews

Interviews were conducted with other pilots from the Lexington base where the accident pilots were assigned. The interviews disclosed the accident pilots were paired as a team and normally flew with each other. While other pilots had flown with them, it was not on a regular schedule. Both pilots were reported to have demonstrated varying degrees of assertiveness in the cockpit. No negative comments were generated for either pilot. However, one pilot did report that the SIC told him he felt uncomfortable flying with the PIC under IFR conditions. No specifics were given for the reported statement of the SIC.

AIRCRAFT INFORMATION

The helicopter was equipped with three sets of attitude indicators and directional gyros. The primary sets were at each pilot station, and a standby set was located on the center instrument panel. Each cockpit indicator had its own gyro supplying information to the cockpit indicator, and the information could not be shared with another indicator.

PHI operated a fleet of 24 S-76s. According to company records, in the 6 months that preceded the accident, fleetwide, there had been a total of 40 vertical gyro replacements on 15 helicopters, and a total of 11 attitude indicator replacements on 7 helicopters. On N2743E, in the preceding 6 months, there were two attitude indicators, and three vertical gyros replaced. According to company records, fleetwide, in the preceding 6 months, the maximum number of attitude indicators replaced on a helicopter was three, and maximum number of vertical gyros replaced was six.

According to a representative of Sikorsky, the manufacturer of the helicopter, the landing lights will extinguish when the landing gear is unlocked for retraction, and will not illuminate until the landing gear is down and locked. The Chief Pilot of PHI reported that the landing gear lights had not been modified, and worked as described by Sikorsky.

AIDS TO NAVIGATION

The helicopter was equipped with dual very high frequency omni directional radio range (VOR) receivers, distance-measuring equipment (DME), and an IFR approved global positioning navigation system (GPS). The planned departure did not require the pilot to navigate to the

Hazard VOR (AZQ). The chief pilot of PHI reported that once airborne from JKL, the Lexington VOR (LEX) would be received and the pilots could navigate towards LEX.

AIRDROME INFORMATION (Departure)

Julian Carroll Airport (JKL) was an uncontrolled airport on the top of a hill with a published field elevation of 1,381 feet. There was one fixed base operation, which sold fuel and performed minor maintenance. According to the US Terminal Procedures, Southeast, Volume 1 of 4, takeoff criteria were published for a runway 1 departure due to an obstruction located off the departure end of the runway. However, no criteria were published for a runway 19 departure. The runway was equipped with medium intensity runway edge lights. There was a VOR/DME and GPS Runway 1 approach. The AZQ VOR was located 12.4 nautical miles on a bearing of 172 degrees magnetic. Weather observations were obtained from an on-airport US Weather Bureau Office, and an ASOS. A check of the fuel supply at the JKL airport revealed that the fuel filter was absent of debris. A check of the underground storage tank for water revealed none present.

FLIGHT RECORDERS

The cockpit voice recorder was recovered and forwarded to the Safety Board vehicle recorder laboratory for readout. After a review of the data, a transcript was made of the departing flight. During the investigation, it was discovered the helicopter was not equipped with a cockpit area microphone (CAM), nor was it required. The helicopter was equipped with continually energized lip microphones at the first and second pilots' stations.

RADAR AND OTHER REMOTELY RECORDED DATA

Radar data was received from Indianapolis Air Traffic Control Center (ARTCC) in the NTAP format. The data was overlaid on a computer generated topographic map. The data revealed the helicopter initially climbed to 1,600 feet, and while turning left, it descended. The final radar contact occurred at 2208:14, at an altitude of 1,300 feet.

WRECKAGE AND IMPACT INFORMATION

On-site investigation revealed the helicopter had impacted rising terrain on a tree-covered slope, at an elevation of about 1,000 feet. The tops of the trees on the top of the ridge were estimated to be about 1,200 feet high. The average slope of the terrain was between 45 degrees and 55 degrees. Broken tree limbs and branches at the accident site were fractured in a 10-15 degree downward attitude, with the left side of the broken branches about 10-15 degrees lower than the right side. The approximate magnetic heading between the broken branches and the debris field at the accident site was 060 degrees magnetic.

The helicopter was fragmented and burned. Debris was spread uphill and along the face of the slope for about 150 feet from the initial impact point. Two heavy items, the main rotor head and transmission were found about 250 feet laterally from the initial impact point.

Two light bulbs, powered by the non-essential electrical bus were found with filament stretch.

One was a white navigation light from the tail rotor vertical fin, and the other a logo light from the left side horizontal stabilizer.

Both engines had sustained impact damage. The throttles on the fuel controls were found set to 100 percent on both engines. The compressor and turbine sections of the left engine could be rotated. The right engine could not be rotated. The impellers of both engines had blades that were bent opposite of the direction of rotation. There was no evident of foreign object damage (FOD) in the turbine section of either engine.

The main rotor head had separated from the helicopter. Three of the spindles for blades were present. All blades were broken off within 12 inches of their respective blade grip. One blade spindle had separated from the rotor hub and was recovered at the accident site. The internal shaft between the spindle and hub was bent opposite of the direction of rotation on the missing spindle. All dynamic counterweights from the rotor head were accounted for at the accident site. All pitch link control rods were fractured.

The main transmission was fractured open and the faces of several gears were visible. The transmission was rotated and gear continuity for the gears present was confirmed. The "bull" gear had been ejected from the transmission during the breakup, and was recovered in the debris field. The freewheeling clutches for power input from the engines were checked and found to freewheel in one direction, and apply torque to the transmission in the opposite direction.

A short section of tail rotor drive shaft, which had received impact damage, was identified. The intermediate gearbox was identified with short sections of drive shaft on each end. When the drive shafts were rotated, the opposite ends moved. The 90-degree gearbox with remnants of the tail rotor blades was recovered. Force applied to the tail rotor drive shaft rotated the gearbox and tail rotor control head.

Breakup of the helicopter precluded a check of flight control continuity.

MEDICAL AND PATHOLOGICAL INFORMATION

The toxicological testing report from the FAA Toxicology Accident Research Laboratory, Oklahoma City, Oklahoma, was negative for drugs and alcohol for both the PIC and SIC.

Autopsies were conducted on the occupants by the Office of the Associate Chief Medical Examiner, Frankfort, Kentucky, on June 16 - 17, 1999.

TESTS AND RESEARCH

Safety Board Materials Laboratory

Several items were retained and forwarded to the Safety Board Materials Laboratory for further examination. According to the metallurgists factual report:

"The submitted instruments were examined with a bench binocular microscope. Examination

of the needle indicator for the attitude direction indicator (item 7) showed that it was pointing to a position between level flight and a 2-degree right roll when received. Disassembly of the housing for item 7 revealed no further transfer marks with regard to the position of the artificial horizon. No transfer mark was found on the faceplate of the other instruments that would have specifically indicated the position of a needle or attitude with respect to a faceplate."

According to the examination of the caution/advisory panel:

"...The examination disclosed that no elongation was found in any of the light bulb filaments...."

Global Positioning System - Trimble

The global positioning system (GPS) was forwarded to Trimble, the manufacturer for examination. According to their report, the system was on and tracking. The following information was obtained.

Database - Current at time of accident, expired by time of GPS examination. Last Update - June 14, 1999 - 2208:36.422. Last Position - 37,33.944N latitude and 83, 17.488W longitude. Distance and Bearing to JKL Airport - 2.09 NM at 329 degrees.

ADDITIONAL INFORMATION

PHI operated two medivac helicopters from the University of Kentucky Hospital heliport. One helicopter (UK1) remained at the heliport and was on call 24 hours a day. The second helicopter (UK2) was on a 12-hour contract. The flight crew would report for duty at 1100, and go off duty at 2300. During the on-call time, the helicopter would be positioned at JKL. Prior to going off duty, the flight crew would return the helicopter to 37KY. Normal manning for each helicopter was two pilots, and two medical personnel.

PHI Air Taxi Operations Manual

Examination of the manual found it applied to 14 CFR 135 flights, and there was no guidance for flights that were conducted under 14 CFR Part 91. In a telephone interview, the Chief Pilot reported that he expected his pilots to follow the guidance contained in the Air Taxi Operations Manual, even if the flight was being conducted under 14 CFR Part 91.

Interviews conducted with captains and co-pilots at the Lexington base, revealed they all believed the IFR section of the manual, including takeoff minimum's would apply even to positioning flights that were conducted under 14 CFR Part 91. When questioned, several pilots pointed out this was covered as a regular part of the their recurrent training.

IFR Takeoff Criteria

According to the section for IFR Operations, the following criteria were published for IFR takeoff when the departure airport had visibility less than the published landing minimum's.

"...1/4 statute mile or Touchdown-Zone RVR 1200 may be used, if either HIRL [High Intensity Runway Lights], CL [Centerline Lights], RCLM [Runway Centerline Markings], or adequate visual reference to continuously identify the takeoff surface of the runway and maintain directional control throughout the take-off run is available."

In the Air Taxi Operations Section, the following was found:

"Transfer of Controls"

"Transfer of aircraft control will be positive with the statement, 'You have the controls', 'I have the controls'. Do not use the phrase, 'I have it.' "

"Crew Cross-Checking"

"The PNF [pilot not flying] must, without hesitation, call attention to deviations outside given tolerances or procedures. The PF [pilot flying] must invite and accept cross-monitoring, and cross-checking. The keys to advanced crew coordination are mutual confidence, early detection, immediate verification, and correction of error. The crew must work together, avoiding overconfidence or complacency."

In the IFR Operations Section, Stabilized Approach Concept, the following was found:

"any time two unstabilized missed approach callouts are unanswered, the PNF shall assume that the PF is incapacitated and shall take the controls and execute the missed approach."

The concept of taking the controls after two unanswered callouts was only found in the stabilized approach section.

Cockpit Resource Management Training

PHI developed their own cockpit resource management (CRM) training program. The training consisted of video presentations and handouts. Both pilots had received initial and recurrent CRM training. Included in the training were several scenarios directed toward the assertiveness of pilots, working as a team in the cockpit, and monitoring each other's actions. The training also included exposing them to situations where the non-flying would monitor the flying pilot's actions to the extent that transfer of control could always take place if needed.

Wreckage Release

The aircraft wreckage was released to the Chief Pilot of PHI on June 19, 1999.

Pilot Information

Certificate:	Commercial	Age:	49, Male
Airplane Rating(s):	None	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	
Instrument Rating(s):	Helicopter	Second Pilot Present:	Yes
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	Last FAA Medical Exam:	January 2, 1999
Occupational Pilot:	Yes	Last Flight Review or Equivalent:	
Flight Time:	6859 hours (Total, all aircraft), 2319 hours (Total, this make and model), 5373 hours (Pilot In Command, all aircraft), 110 hours (Last 90 days, all aircraft), 40 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Sikorsky	Registration:	N2743E
Model/Series:	S-76A S-76A	Aircraft Category:	Helicopter
Year of Manufacture:		Amateur Built:	
Airworthiness Certificate:	Transport	Serial Number:	760155
Landing Gear Type:	Retractable - Tricycle	Seats:	4
Date/Type of Last Inspection:	June 4, 1999 Continuous airworthiness	Certified Max Gross Wt.:	10465 lbs
Time Since Last Inspection:	24 Hrs	Engines:	2 Turbo shaft
Airframe Total Time:	10721 Hrs	Engine Manufacturer:	Allison
ELT:	Installed, not activated	Engine Model/Series:	250 C30S
Registered Owner:		Rated Power:	650 Horsepower
Operator:		Operating Certificate(s) Held:	On-demand air taxi (135)
Operator Does Business As:		Operator Designator Code:	HEEA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	Condition of Light:	Night/dark
Observation Facility, Elevation:	JKL ,1381 ft msl	Distance from Accident Site:	2 Nautical Miles
Observation Time:	21:56 Local	Direction from Accident Site:	328°
Lowest Cloud Condition:	Unknown	Visibility	0.25 miles
Lowest Ceiling:	Overcast / 200 ft AGL	Visibility (RVR):	
Wind Speed/Gusts:	/	Turbulence Type Forecast/Actual:	/
Wind Direction:	0°	Turbulence Severity Forecast/Actual:	/
Altimeter Setting:	30 inches Hg	Temperature/Dew Point:	18° C / 18° C
Precipitation and Obscuration:	N/A - None - Fog		
Departure Point:	JACKSON , KY (JKL)	Type of Flight Plan Filed:	IFR
Destination:	LEXINGTON , KY (37KY)	Type of Clearance:	IFR
Departure Time:	22:08 Local	Type of Airspace:	Class G

Airport Information

Airport:	JULIAN CARROLL JKL	Runway Surface Type:	Asphalt
Airport Elevation:	1381 ft msl	Runway Surface Condition:	Dry
Runway Used:	19	IFR Approach:	None
Runway Length/Width:	4400 ft / 75 ft	VFR Approach/Landing:	None

Wreckage and Impact Information

Crew Injuries:	4 Fatal	Aircraft Damage:	Destroyed
Passenger Injuries:		Aircraft Fire:	On-ground
Ground Injuries:	N/A	Aircraft Explosion:	None
Total Injuries:	4 Fatal	Latitude, Longitude:	37.549636,-83.369407(est)

Administrative Information

Investigator In Charge (IIC):	Hancock, Robert
Additional Participating Persons:	JAMES GREENWOOD; LOUISVILLE , KY MICHAEL HURST; LAFAYETTE , LA CHRIS LOWENSTEIN; STRATFORD , CT WARREN SEITZINGER; INDIANAPOLIS , IN
Original Publish Date:	July 10, 2001
Note:	
Investigation Docket:	https://data.nts.gov/Docket?ProjectID=46619

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](#).