National Transportation Safety Board
Aviation Accident Final Report

Location:	Doland, South Dakota	**Accident Number:**	CHI02FA288
Date & Time:	September 9, 2002, 21:52 Local	**Registration:**	N400SL
Aircraft:	Bell 206L-1	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	4 Fatal
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled - Air Medical (Medical emergency)		

Analysis

The helicopter was destroyed when it impacted terrain during an emergency medical service flight. The accident occurred during a dark night, in a sparsely populated area with no lighted ground references. Marginal visual flight rules conditions prevailed along the route of flight. The pilot had a documented history of having difficulty flying at night without lighted ground references. The company base and safety managers reported the pilot's night flying deficiency to the company chief pilot. The chief pilot subsequently evaluated the pilot during a night flight. After the evaluation flight, the chief pilot decided to increase the pilot's nighttime weather minimums for a period of 25 night hours as he gained night experience. The accident flight occurred on the pilot's fourth night mission after being evaluated by the chief pilot. Inspection of the helicopter wreckage did not reveal any evidence of a pre-impact malfunction. A review of the helicopter's daily usage logs indicated that there were no unresolved maintenance discrepancies. The pilot who flew the helicopter prior to the accident flight did not report any malfunctions.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: Pilot spatial disorientation while flying in dark night conditions, resulting in a loss of aircraft control; and the company's inadequate remedial actions after identifying the pilot's night flying deficiency over areas without lighted references. A factor to the accident was the dark night conditions.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: CRUISE

Findings
1. (C) AIRCRAFT CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. (C) SPATIAL DISORIENTATION - PILOT IN COMMAND
3. (F) LIGHT CONDITION - DARK NIGHT
4. (C) REMEDIAL ACTION - INADEQUATE - COMPANY/OPERATOR MANAGEMENT

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

Findings
5. TERRAIN CONDITION - GROUND

Factual Information

HISTORY OF FLIGHT

On September 9, 2002, at 2152 central daylight time (cdt), a Bell 206L-1 helicopter, N400SL, piloted by a commercial pilot, was destroyed during a collision with terrain about 3.6 nautical miles (nm) southeast of Doland, South Dakota. Night marginal visual meteorological conditions (MVFR) prevailed at the time of the accident. The flight was operating under the provisions of 14 Code of Federal Regulations (CFR) Part 135 while on a company flight plan. The pilot, flight nurse, flight paramedic, and patient were fatally injured. The flight departed from Avera St. Luke's Hospital (SD54), Aberdeen, South Dakota, at 2131 and was en route to Heart Hospital of South Dakota Heliport (2SD6), Sioux Falls, South Dakota.

The helicopter was operated by Omniflight Incorporated, an on-demand air ambulance service. According to company personnel, the flight from SD54 to 2SD6 was considered a routine flight and the accident pilot was familiar with the route. The route was normally flown direct from SD54, navigated by pilotage and augmented with a global positioning system (GPS) receiver. When flying GPS direct, the helicopter passes over Doland.

According to company dispatch records, the helicopter departed SD54 and proceeded directly toward 2SD6. At 2149:49 (hhmm:ss), the company dispatcher asked the pilot for a position report. The pilot replied that there were four individuals on-board the helicopter, that the helicopter had two hours of fuel remaining, and that the estimated time en route (ETE) was 58 minutes. The dispatcher confirmed the pilot's transmission, including the 58 minute ETE. The pilot's position report placed the helicopter near Doland, according to company pilots familiar with the route.

At 2151:11, the pilot relayed the crew identification numbers to the dispatcher. At 2151:16, the dispatcher repeated the crew identification numbers and the pilot replied, "affirmative." There were no additional transmissions received from the accident helicopter.

Several Doland area residents witnessed the accident helicopter flying over the town around 2150. The witnesses reported that the helicopter was flying southeast over the town approximately 300 - 500 feet above ground level (agl). One witness reported that the helicopter "seemed to be running fine." Another witness reported that the helicopter was "a little slower...than normal."

One of the witnesses reported that "the sky was overcast, but the clouds were breaking up as [he] noticed stars becoming visible. It had rained earlier in the evening, but at least by [2130 cdt] it was not raining." Another witness reported that "the clouds were starting to break up [and] it was clearing in the west but clouds were present in the east."

DAMAGE TO AIRCRAFT

The helicopter was destroyed by impact forces with terrain.

PERSONNEL INFORMATION

According to Federal Aviation Administration (FAA) records, the pilot, age 39, held a commercial pilot certificate with rotorcraft/helicopter, airplane single engine land (SEL), and helicopter/airplane instrument ratings. The pilot also held a certified flight instructor (CFI) certificate with rotorcraft/helicopter, SEL, and helicopter/airplane instrument ratings. The pilot's last FAA medical examination was completed on February 4, 2002, when he was issued a second-class medical certificate with the limitation "shall wear corrective lenses." The pilot was a Japanese citizen working in the United States as a registered permanent resident.

According to the pilot's flight records, he had accumulated 2,670.3 hours of flight experience, with 2,572.2 hours in helicopters and 98.1 hours in SEL airplanes. The pilot had logged 2,338.4 hours as pilot-in-command (PIC), of which 2,062.0 hours were as a helicopter flight instructor.

The pilot had 140.5 hours of night experience, with 129.2 hours in helicopters and 11.3 hours in airplanes. He had logged 91.0 hours of night cross country flying, including 79.7 hours in helicopters. A review of the pilot's flight logbooks indicated a majority of his night experience was completed near major metropolitan areas while providing flight instruction.

The pilot had 56.8 hours of instrument experience in both helicopters and airplanes. He had logged 10.2 hours in actual instrument conditions and 46.6 hours in simulated conditions. The pilot had 20.4 hours of instrument time in helicopters, all of which were in simulated conditions.

A majority of the pilot's helicopter experience, 2,249.5 hours, was completed in the Robinson R-22. The pilot had also accumulated 321.2 hours in the Bell 206, 1.0 hour in the Aerospatiale AS-350 and 0.5 hours in a Bell 47.

The pilot had flown 244.2 hours in helicopters during the past year, consisting of 130.2 hours in Bell 206 helicopters and 114.0 hours in Robinson R-22 helicopters. He flew 81.4 hours during the prior 6 months, 51.1 hours during the past 90 days, and 1.6 hours during the previous 30 days. The pilot did not fly during the 24 hours before the accident flight.

The pilot worked 17 twelve-hour shifts during the previous 30 calendar days. The pilot reported for duty on September 9, 2002, at 1900, after being off-duty for 12 hours.

- Flight Training History

The pilot began his primary helicopter flight training on September 6, 1991, and obtained a private pilot certificate on December 13, 1991. He continued his flight training and obtained his commercial pilot certificate on March 16, 1992, and his CFI certificate on May 13, 1992. On August 25, 1992, the pilot began helicopter flight instruction in Japan and obtained a Japan Civil Aviation Bureau (JCAB) commercial helicopter license on March 3, 1993.

On August 6, 1999, the pilot began airplane flight instruction in the United States and obtained a FAA private pilot rating for SEL airplanes on September 10, 1999. He then began instrument

airplane flight instruction. On April 20, 2000, the pilot did not pass an airplane instrument practical exam and received a Notice of Disapproval of Application. According to FAA records, during the examination the pilot became disoriented while flying instrument approaches and the flight examiner had to take control of the airplane. The pilot also incorrectly selected the radial for a VOR approach and missed the airport by several miles. On two occasions during the flight the examiner had to explain air traffic control clearances to the pilot.

After the checkride the pilot did not fly airplanes until February 2, 2001, when he resumed taking instrument instruction again. The pilot successfully obtained his airplane instrument rating on February 28, 2001. He continued to receive airplane flight instruction and obtained a commercial SEL airplane rating on March 23, 2001, and a CFI SEL airplane rating on April 3, 2001. On November 6, 2001, the pilot received a CFI instrument airplane rating.

The pilot took two FAA practical examinations on November 19, 2001. The first practical exam was to add a helicopter instrument rating to his commercial certificate. The pilot satisfactorily passed the practical examination for the helicopter instrument rating. The second practical exam was to add a helicopter instrument rating to his flight instructor certificate. The pilot did not pass the practical exam and received a Notice of Disapproval of Application. According to FAA records, the pilot demonstrated unsatisfactory knowledge of ATC procedures and clearances. The pilot obtained his instrument helicopter instructor rating on December 04, 2001, after successfully completing the practical exam on the second attempt.

- Aviation Employment History

The pilot came to the United States to work as a helicopter flight instructor, in January 1994. He was initially employed by Puget Sound Helicopters, Renton, Washington. In May 1997, he began providing flight instruction for Kyodo Air Incorporated, Paso Robles, California. Between September 1997 and January 2002, the pilot was the Director of International Training for Hillsboro Aviation Incorporated, Hillsboro, Oregon. He also provided helicopter flight instruction and was a helicopter charter pilot (14 CFR Part 135) while employed by Hillsboro Aviation.

On January 17, 2002, the pilot was hired by Omniflight Helicopters Incorporated, based in Addison, Texas. When hired the pilot had 2,464.1 hours of helicopter flight experience, of which 213.1 hours were in a Bell 206. The pilot had 112.8 hours of night experience in helicopters, including 69.7 hours of night cross country. He had 18.6 hours of instrument time, all of which was simulated instrument time.

The pilot began indoctrination flight training on January 23, 2002, and was approved for 14 CFR Part 135 operations after passing a FAA Airman Competency/Proficiency Check on January 25, 2002. On February 16, 2002, the pilot reported for duty at the Omniflight base in Aberdeen, South Dakota.

During February 2002, the pilot's ability to perform night missions was evaluated by the base manager, base safety manager, and a company check airman. The safety manager reported that "it became apparent that [the pilot] had not flown over an area that was dark, or void of lights. Every time [the pilot] turned right he went into a dive and every time he turned left he

went into a climb." The safety manager stated that the pilot also had difficulties operating the search light, determining wind direction and helicopter heading, and making routine radio calls. The base manager decided to restrict the pilot to day-missions only.

In June 2002, a newly appointed base manager flew with the pilot to determine his ability to fly night missions. On June 9, 2002, the base manager wrote an e-mail to the company chief pilot in which he raised concerns about the pilot's ability to fly night missions. The e-mail stated, "I believe [the pilot] lacks the proficiency to multi-task instrument cross check while operating the search light for [landing zone] recon and maintaining positional awareness in a dark environment." The base manager also cited concerns about the pilot's ability to communicate effectively with air traffic control and crew members. The base manager stated that the pilot "needs more experience but how much risk are we taking letting him get it on the job?"

On June 19, 2002, the base safety manager wrote a letter to the company chief pilot to express his concerns with the pilot's "night flying abilities." The safety manager wrote that the pilot's "control touch at night is poor...when he goes into a right turn he loses altitude, and the steeper the turn the greater the rate of descent becomes." The safety manager also stated his concerns that the pilot had difficulty navigating without reference to a GPS receiver and his inability to multi-task during flight.

In response to the concerns raised by the base manager and safety manager, the chief pilot traveled to Aberdeen to evaluate the pilot. On June 28, 2002, the chief pilot flew 1.3 hours with the pilot during night conditions. After the completion of the flight, the chief pilot raised the pilot's night weather minimums to ceilings not lower than 1,500 feet agl and at least 5 miles visibility. The increased weather minimums were to be followed for a period of 25 night flight hours, after which the pilot's night flying ability would be reevaluated by the safety manager. The chief pilot commented that the pilot "should work on radio communications" and he "need[ed] to be a little more aggressive in the cockpit."

The accident flight occurred during the pilot's fourth night mission following his evaluation flight with the company chief pilot. He had accumulated an additional 5.5 hours of night experience after the evaluation flight.

AIRCRAFT INFORMATION

The accident helicopter, a Bell 206L-1, serial number 45235, was operated as a light utility emergency medical service (EMS) helicopter and was configured with an EMS litter and interior. The helicopter's maximum certified gross weight was listed as 4,150 lbs.

The accident helicopter was issued a FAA standard airworthiness certificate on April 27, 1979. The helicopter was maintained under the provisions of a FAA approved inspection program. The last airframe examination was completed on August 29, 2002, at 9,731.5 hours total time. The helicopter had accumulated 18.2 hours since the inspection. Prior to the accident flight the helicopter had accumulated a total time of 9,749.3 hours. The helicopter's recording hour meter was 9,749.7 at the accident site. The helicopter had accumulated 6,888 landings prior to the accident.

The helicopter was powered by a single 500 shaft-horsepower Allison 250-C28B turbo-shaft engine. The engine, serial number CAE860108, had accumulated a total time of 8,711.1 hours and 16,000 start cycles. The last engine examination was completed on August 7, 2002, at 8,669.8 hours total time. The engine had accumulated 41.3 hours since the inspection.

A review of the daily usage logs for the helicopter indicated that there were no unresolved maintenance discrepancies. The last discrepancy was recorded on August 31, 2002, and was for an inoperative attitude indicator. The discrepancy was resolved on September 1, 2002, when the inoperative attitude indicator was replaced. The helicopter accumulated 16.5 flight hours since the discrepancy was resolved and no additional discrepancies were noted with the helicopter during that period. The pilot who flew the helicopter prior to the accident flight did not report any malfunctions.

METEOROLOGICAL INFORMATION

The closest weather reporting station to the accident site was located at the Huron Regional Airport (HON), about 30 nm south-southwest of the accident site. The airport is equipped with an Automated Surface Observing System (ASOS). The following weather conditions were reported at the time of departure and at the time of the accident:

At 2129: Wind 350 degrees true at 11 knots; visibility 10 statute miles (sm); broken clouds at 2,900 feet agl, overcast ceiling at 10,000 feet agl; temperature 13 degrees Celsius; dew point 12 degrees Celsius; altimeter setting 30.16 inches-of-mercury.

At 2155: Wind 010 degrees true at 11 knots; visibility 10 sm; few clouds at 2,700 feet agl, overcast ceiling at 10,000 feet agl; temperature 13 degrees Celsius; dew point 12 degrees Celsius; altimeter setting 30.16 inches-of-mercury.

The closest weather reporting station to the departure helipad (SD54) was located at Aberdeen Regional Airport (ABR), about 9 nm east of the hospital and approximately 38 nm north of the accident site. Weather conditions are recorded by an ASOS located on the airport. The following weather conditions were reported prior to departure and at the time of the accident:

At 2056: Wind 350 degrees true at 5 knots; visibility 10 sm; broken clouds at 6,500 feet agl, overcast ceiling at 10,000 feet agl; temperature 13 degrees Celsius; dew point 12 degrees Celsius; altimeter setting 30.17 inches-of-mercury.

At 2156: Wind 330 degrees true at 6 knots; visibility 10 sm; sky clear; temperature 13 degrees Celsius; dew point 12 degrees Celsius; altimeter setting 30.18 inches-of-mercury.

The closest weather reporting station to the destination (2SD6) was located at Joe Foss Field (FSD), about 6 nm north of the hospital and approximately 98 nm southeast of the accident site. The airport is equipped with an ASOS that reported the following weather conditions prior to the helicopter departing SD54, at the time of the accident, and the proposed arrival time at 2SD6:

At 2056: Wind 260 degrees true at 5 knots; visibility 9 sm; few clouds at 5,500 feet agl, overcast ceiling at 9,500 feet agl; temperature 22 degrees Celsius; dew point 21 degrees Celsius; altimeter setting 30.02 inches-of-mercury.

At 2156: Wind 290 degrees true at 9 knots; visibility 5 sm in moderate rain and mist; few clouds at 500 feet agl, overcast ceiling 5,500 feet agl; temperature 21 degrees Celsius; dew point 20 degrees Celsius; altimeter setting 30.04 inches-of-mercury. Remarks: rain began at 2112 cdt, precipitation since last hour report 0.04 inches, 3-hour precipitation 0.08 inches.

At 2205: Wind 310 degrees true at 13 knots gusting to 19 knots; visibility 8 sm in light rain; broken clouds at 500 feet agl, overcast ceiling 6,000 feet agl; temperature 20 degrees Celsius; dew point 19 degrees Celsius; altimeter setting 30.05 inches-of-mercury.

At 2256: Wind 350 degrees true at 14 knots; visibility 10 sm in light rain; overcast ceiling 900 feet agl; temperature 16 degrees Celsius; dew point 14 degrees Celsius; altimeter setting 30.07 inches-of-mercury. Remarks: ceiling variable between 500 and 1,100 feet agl.

The National Weather Service (NWS) Area Forecast issued for the accident area expected broken ceilings at 1,500 feet agl and overcast ceilings at 5,000 feet agl, with occasional 3 to 5 miles visibility in light rain and mist. The NWS Weather Depiction Chart for 2000 cdt depicted MVFR conditions along the proposed route of flight and at the accident site. The MVFR conditions were due to low ceilings and reduced visibilities in rain and mist.

The NWS Radar Summary Chart for 2115 cdt depicted a band of radar echoes associated with a frontal system moving across the accident area. The band of radar echoes was orientated in a northeast to southwest direction, extending from central Minnesota through southeastern Colorado. Light to moderate intensity echoes covered the accident site at 2115 and by 2215 the precipitation had moved eastward, but continued to effect the planned destination.

As previously mentioned, a Doland area witness reported that weather at the time of the accident was "overcast but the clouds were breaking up as [he] noticed stars becoming visible. It had rained earlier in the evening, but at least by [2130 cdt] it was not raining." Another Doland area witness reported that "the clouds were starting to break up [and] it was clearing in the west but clouds were present in the east."

The only pilot report (PIREP) recorded near the accident site was by a Cessna 402 pilot over Huron, 30 nm south-southwest of the accident site, at 2059 cdt. The PIREP indicated scattered to broken clouds with bases at 4,000 feet agl and tops at 8,000 feet agl. The pilot also reported an additional cloud layer at 13,000 feet agl.

According to data supplied by the U.S. Naval Observatory, the accident occurred at night with no illumination from the moon, which was 3 degrees below the horizon.

FLIGHT RECORDERS

The accident helicopter was not equipped, nor was it required to be equipped, with a cockpit voice recorder (CVR) or flight data recorder (FDR).

WRECKAGE AND IMPACT INFORMATION

The National Transportation Safety Board's on-scene investigation began on September 10, 2002.

A GPS receiver was used to identify the position of the initial impact as 44-degrees 51.24-minutes north latitude, 98-degrees 02.42-minutes west longitude. The helicopter impacted a soybean field located about 3.6 nm southeast of Doland, South Dakota.

The wreckage was distributed in a fan-shaped area. The centerline of the debris field was on a 170-degree magnetic heading. The limits of the fan-shaped area were between 155 and 185 degrees magnetic, with the furthest wreckage located about 345 feet from the initial impact point.

The wreckage debris path began with a ground impression that was 24 feet long, 2 feet wide and 16 inches deep. The ground impression was orientated on a north-south heading. The ground impression was consistent with the main rotor system striking the terrain. The main transmission, mast, and rotor hub assembly were located at southern end of the ground impression. One of the main rotor blades (s/n A-2302) remained attached to its respective grip and the main rotor hub remained attached to the main rotor mast. The engine was found about 5 feet from the main transmission. The right and left landing skids were about 10 feet from the main transmission. The aft portion of the fuselage, tailboom, tail rotor gearbox, and tail rotor were located about 35 feet from the main transmission, facing opposite the direction of debris propagation. Both tail rotor blades remained attached to the hub assembly. The main cabin and cockpit were fragmented and distributed throughout the wreckage path. The second main rotor blade (s/n A-1114) was found about 70 feet from the main transmission. The EMS litter was about 118 feet from the main transmission. The aft and forward skid cross tubes were located 164 feet and 345 feet from the main transmission, respectively.

The wreckage was recovered to a nearby facility for reconstruction efforts, due to the extensive damage and overall distribution of the wreckage. The wreckage was first sorted by airframe location and then repositioned in a two-dimensional reconstruction. The two-dimensional reconstruction determined that all primary airframe structural components, flight control systems, rotor systems, transmissions, and powerplant components were present. The main rotor damage was consistent with mast rotation at impact. The main transmission case was fractured and the mast could not be rotated by hand. The freewheeling unit could not be rotated by hand, due to damage consistent with impact. The freewheeling unit was disassembled and no anomalies were found. Flight control continuity could not be established due to the extensive damage to all components. Inspection of the recovered flight control components did not exhibit any evidence of pre-impact malfunction. All portions of the tail rotor drive shaft were recovered and no pre-impact anomalies were noted. No anomalies were noted with the tail rotor gear box or the tail rotor blades. No pre-impact anomalies were found with the helicopter airframe or its related control systems.

The three main rotor control servos were examined at the manufacturer's facility. Two of the three servos functioned when hydraulic pressure was applied. The third servo did not function

due to impact damage to its housing. The actuators did not meet design specifications due to damage consistent with impact.

The engine was examined and partially disassembled during the on-scene investigation. The spur adapter gearshaft was twisted-off at both the compressor and turbine ends, consistent with engine rotation at time of impact. The compressor impeller had rubbed completely around the compressor front support, consistent with engine rotation at time of impact. Fuel was collected from the fuel nozzle line and the sample did not contain any visible contamination. The fuel nozzle was removed and the filter screen was not damaged or contaminated. The outer combustion case was removed and no anomalies were found with the combustion liner. No pre-impact anomalies were found with the engine.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot on September 11, 2002, at LCM Pathologists, Sioux Falls, South Dakota.

Toxicology samples for the pilot were submitted to the FAA Civil Aeromedical Institute, Oklahoma City, Oklahoma. A Forensic Toxicology Fatal Accident Report was prepared and the results were as follows:

No Ethanol detected in Kidney
14 (mg/dL, mg/hg) Ethanol detected in Muscle *
13 (mg/dL, mg/hg) Acetaldehyde detected in Muscle

* The ethanol found in the case is from postmortem ethanol formation and not from the ingestion of ethanol.

TESTS AND RESEARCH

The base manager repositioned the helicopter from Sioux Falls to Aberdeen prior to the accident flight. He reported that he arrived at SD54 around 2015 cdt. The base manager stated that he did not notice anything abnormal with the helicopter during the flight. He also reported that the weather conditions during the repositioning flight were MVFR with rain and mist.

ADDITIONAL INFORMATION

The wreckage was released to a representative of the owner on April 15, 2003.

Parties to the investigation included the FAA, Bell Helicopter, Rolls-Royce Corporation, and Omniflight Incorporated.

Pilot Information

Certificate:	Commercial; Flight instructor; Foreign	**Age:**	39,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	Airplane single-engine; Helicopter; Instrument airplane; Instrument helicopter	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	February 4, 2002
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	January 25, 2002
Flight Time:	2670 hours (Total, all aircraft), 321 hours (Total, this make and model), 2338 hours (Pilot In Command, all aircraft), 51 hours (Last 90 days, all aircraft), 2 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	**Registration:**	N400SL
Model/Series:	206L-1	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	45235
Landing Gear Type:	Skid	**Seats:**	4
Date/Type of Last Inspection:	August 29, 2002 AAIP	**Certified Max Gross Wt.:**	4150 lbs
Time Since Last Inspection:	18.2 Hrs	**Engines:**	1 Turbo shaft
Airframe Total Time:	9749.7 Hrs at time of accident	**Engine Manufacturer:**	Allison
ELT:	Installed, not activated	**Engine Model/Series:**	250-C28B
Registered Owner:		**Rated Power:**	500 Horsepower
Operator:		**Operating Certificate(s) Held:**	On-demand air taxi (135)
Operator Does Business As:		**Operator Designator Code:**	RMXA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Night/dark
Observation Facility, Elevation:	HON,1289 ft msl	**Distance from Accident Site:**	30 Nautical Miles
Observation Time:	21:55 Local	**Direction from Accident Site:**	160°
Lowest Cloud Condition:	Few / 2700 ft AGL	**Visibility**	10 miles
Lowest Ceiling:	Overcast / 10000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	11 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	10°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.15 inches Hg	**Temperature/Dew Point:**	13°C / 12°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Aberdeen, SD (SD54)	**Type of Flight Plan Filed:**	Company VFR
Destination:	Sioux Falls, SD (2SD6)	**Type of Clearance:**	None
Departure Time:	21:31 Local	**Type of Airspace:**	Class G

Wreckage and Impact Information

Crew Injuries:	3 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	4 Fatal	**Latitude, Longitude:**	44.853889,-98.040275

Administrative Information

Investigator In Charge (IIC):	Fox, Andrew
Additional Participating Persons:	James R Wallingford; Federal Aviation Administration - Rapid City FSDO; Rapid City, SD Mark C Stuntzner; Bell Helicopter; Fort Worth, TX Michael A Weber; Rolls-Royce Corporation; Indianapolis, IN Russell Braddock; Omniflight Helicopters, Incorporated; Addison, TX
Original Publish Date:	February 24, 2005
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=55742

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.