Aviation Investigation Final Report

Location:	Gentry, Arkansas	**Accident Number:**	DFW05FA073
Date & Time:	February 21, 2005, 13:39 Local	**Registration:**	N5734M
Aircraft:	Bell 206-L1	**Aircraft Damage:**	Substantial
Defining Event:		**Injuries:**	1 Fatal, 3 Serious
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled - Air Medical (Medical emergency)		

Analysis

The purpose of the air medical flight was to pick up a patient who had been involved in a motor vehicle accident in a rural area, and to transport him to a hospital. The helicopter landed to the north on the front lawn of a private residence. After the patient was boarded, the commercial pilot attempted to determine the wind direction, but found no visual cues. However, he estimated the winds were about 10-15 knots from between 330 and 030 degrees. He stated that he had encountered similar winds while en route to the landing zone. A second EMS pilot who arrived at the scene after the accident stated that the winds were from 030 to 050 at 10 knots. The accident pilot stated that he brought the helicopter to a hover and maneuvered the helicopter to the right to avoid power lines that crossed the residential property. The pilot stated that when he departed, he began a vertical ascent but was trying not to increase the collective above the available torque. He stated that he was concerned about clearing the power lines and losing tail rotor effectiveness. When the helicopter reached an altitude abeam of the power lines, it began an uninitiated spin to the right. The pilot stated that the torque was near 100 percent. He applied full left torque pedal, and attempted to gain forward airspeed. He also used the cyclic to follow the nose of the aircraft in an attempt to fly out of the turn. The pilot was unable to gain airspeed and the helicopter continued to spin to the right and to descend. The pilot initiated an autorotation by lowering the collective and placing the throttle in the idle position, which he stated stopped the spinning. When the helicopter was about 10 to 20 feet above ground, the pilot placed the collective in the full-up position to cushion the landing. However, there was not sufficient main rotor rpm to stop the high rate of descent and the helicopter landed hard in a field adjacent to the private residence. Examination of the helicopter revealed no preimpact structural, system, or other mechanical anomalies. A critical wind azimuth in the Bell 206-L1 flight manual indicated an increased risk of loss of tail rotor effectiveness when winds are encountered between 050 and 210 degrees.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's improper decision to maneuver in an environment conducive to a loss of tail rotor effectiveness.

Findings

Occurrence #1: LOSS OF CONTROL - IN FLIGHT
Phase of Operation: HOVER - OUT OF GROUND EFFECT

Findings
1. WEATHER CONDITION - CROSSWIND
2. (C) LOSS OF TAIL ROTOR EFFECTIVENESS - ENCOUNTERED - PILOT IN COMMAND
3. (C) IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND

Occurrence #2: HARD LANDING
Phase of Operation: DESCENT - UNCONTROLLED

Findings
4. AUTOROTATION - INITIATED - PILOT IN COMMAND
5. ROTOR RPM - NOT MAINTAINED - PILOT IN COMMAND

Factual Information

HISTORY OF FLIGHT

On February 21, 2005, at 1339 central standard time, a single-engine Bell 206-L1 helicopter, N5734M, operated by Air Evac Lifeteam was substantially damaged during a hard landing following a loss of control while hovering out of ground effect near Gentry, Arkansas. The commercial pilot, the flight nurse, and the paramedic were seriously injured and the patient was fatally injured. The helicopter was registered to Air Evac Leasing Corporation, of West Plains, Missouri, d/b/a Air Evac Lifeteam, and was destined for Springdale, Arkansas. No flight plan was filed and visual meteorological conditions prevailed for the air medical transport flight conducted under 14 Code of Federal Regulations Part 135.

According to Arkansas State Police reports, the patient was involved in a single motor vehicle, rollover traffic accident. A dispatcher with Bentonville Fire and Ambulance, Bentonville, Arkansas, dispatched ground units to the accident scene and contacted Air Evac Lifeteam. She told the Air Evac Lifeteam dispatcher that she had no details of the patient's injuries but the situation was "bad." The dispatcher requested helicopter support and provided global positioning system (GPS) coordinates of the accident site.

A review of Air Evac Lifeteam's radio transmissions revealed that at 1231, the Claremore, Oklahoma, based crew was dispatched to the accident site because the Springdale, Arkansas, crew were responding to another call. At 1239, the helicopter departed Claremore Regional Airport, and one minute later a crewmember reported there were three people on board and their estimated time en route was 20-30 minutes. While en route, the pilot contacted dispatch and informed them that they were unable to locate the motor vehicle accident and requested an update of the accident site's GPS coordinates. The dispatcher contacted Bentonville Fire and Ambulance and learned that there were no changes to the GPS coordinates. The pilot and crew continued to search for the vehicle accident site.

Meanwhile, the patient had been transported via ambulance approximately one-half mile south of where the vehicle accident occurred to a designated landing zone, which was the front lawn of a private residence.

About 1327, a helicopter crewmember contacted dispatch and reported that they had located the site and were landing at the designated landing zone.

An Arkansas State Trooper, who had escorted the ambulance, reported that he observed the helicopter circle over the accident site, and then execute an approach to the north and land. The patient was then transferred over to the flight crew and loaded on to the helicopter. The Trooper observed the helicopter as it departed. He said he heard the helicopter's engine

achieve full power and then it began a vertical climb to approximately 100 feet, when it began to spin. The helicopter continued to spin, before it got "silent' and dropped to the ground in a field adjacent to the landing zone.

Several emergency medical service (EMS) personnel also observed the helicopter as it departed. Each reported similar accounts of how the helicopter started to spin shortly after it departed, and subsequently land in the field.

A witness, who owned the property where the helicopter had landed, was in her backyard when she observed the helicopter depart. She said the helicopter was initially parked in her front yard facing the north. As it departed, the helicopter ascended and then began to slowly spin to the right as it maneuvered over her house and toward an open field adjacent to her home. She said the helicopter began to spin faster, and after it made several rotations it "dropped" and landed upright in the field. The witness could not recall how high the helicopter was above the ground when it started to spin, but she felt that it was too low. She also stated that she did not hear any unusual noises from the helicopter during its short flight.

The pilot was interviewed in the hospital the day after the accident. He stated that during his recon of the landing zone, he could not find any indicators that would assist him with determining wind direction; however, when he had reviewed the weather that morning the winds were reported out of the north between 330 and 030 degrees and were "brisk", about 10-15 knots. The pilot was also able to identify and verify all obstacles reported by his crew in the vicinity of the designated landing zone.

After the patient boarded, the pilot stated that he lifted the helicopter to a hover and then pointed the nose of the helicopter on a heading of 360 degrees. While still in a hover, the pilot maneuvered the helicopter to the right and stopped when he was about 25 feet from the property owner's home. He did this to avoid about 60-foot power lines that ran diagonally in front of the helicopter from southwest to northeast. Another set of power lines that ran north to south were located behind the home. Both sets of power lines converged at the same wooden utility pole, which was located north of the home.

The pilot stated that when he departed, he began a vertical ascent but was trying not to increase the collective above the available torque. He added that he was concerned about clearing the power lines and losing effectiveness of the tail rotor. When the helicopter reached an altitude nearly abeam of the power lines, it began an uncommanded spin to the right. The pilot noted that the torque was nearly 100 percent. The pilot had full left torque pedal applied at the time, and said that he attempted to gain forward airspeed, and also used the cyclic to follow the nose of the aircraft in an attempt to fly out of the turn. The pilot was unable to gain airspeed, and the helicopter began to spin to the right and descend. The pilot stated that his only option was to initiate an autorotation, so he lowered the collective and placed the throttle in the idle position, which he stated stopped the spinning. When the helicopter was approximately 10-20 feet above the ground, the pilot placed the collective to the full-up position to cushion the landing; however, there was not sufficient main rotor rpm to stop the

high rate of descent. After the impact, the pilot said the engine was still running so he secured the helicopter, which included turning off the fuel valve and battery switch.

The helicopter was equipped with an In-Flight Position System (IPS), which tracked the helicopter's movement as soon as its skids broke ground. A review of IPS data revealed that the helicopter departed Claremore Regional Airport at 1239, and landed at the designated landing zone near the accident site at 1327, a 48-minute flight. It then departed at 1335 with the patient onboard, and landed in a field four minutes later at 1339, the time of the accident. In addition, a review of the helicopter's complete flight from Claremore to the accident site revealed that the helicopter did not proceed directly to the accident site, which was approximately 50 miles east of Claremore, Oklahoma. Instead, it flew on a northeasterly, then easterly course, toward the Gravette Medical Center Hospital, Gravette, Arkansas. After the helicopter passed the hospital, it made a right 180-degree turn and proceeded to fly westbound for several miles before it made a left turn and headed south toward the accident site.

According to the pilot, he set the accident site coordinates in one of the onboard GPS receivers prior to the flight. He said that after departure, he pushed the "direct" button on the receiver and then proceeded directly to the accident site. However, he was not aware that there was an IPS system installed on the helicopter and that his entire flight had been recorded. When asked why he flew the non-direct route that was recorded by the IPS, he stated that he did not recall that part of the flight, but did recall that the crew was more familiar with the area than he was, and that they "did have to maneuver and search for the accident site and they made a lot of corrections during the flight. If one of the crew members thought the coordinates were over there, then they would fly over there."

The pilot denied that he may have programmed the GPS receiver incorrectly, and said that he would normally check his data.

The accident occurred during the hours of daylight approximately 36 degrees, 19 minutes north latitude, and 94 degrees, 34 minutes west longitude.

PERSONNEL INFORMATION

The pilot held a commercial certificate for rotorcraft-helicopter, instrument helicopter, and airplane single-engine land. He was also a certificated airframe and power plant mechanic. The pilot reported a total of 3,500 hours of total flight time, of which approximately 3,438 hours were in helicopters with 15 hours were in the make and model. His last second-class FAA medical certificate was issued on December 13, 2004.

During an interview, the pilot said that he had recently flown (within two weeks of the accident) Blackhawk helicopters for the United Stated Army, and had recently worked for a major airline as an avionics technician. Due to recent furloughs, and having friends who were EMS pilots, he applied to Air Evac Leasing Corporation and was hired as a pilot.

According to the operator, the pilot was hired on January 10, 2005, and completed the New-Hire Training program on January 20, 2005. All of his training was completed in a Bell 206-L1 helicopter, which totaled 11.1 hours.

AIRCRAFT INFORMATION

Air Evac Leasing Corporation had completely refurbished the helicopter (S/N: 45449) at their facility in West Plains, Missouri. The helicopter had undergone an annual inspection on January 25, 2005, at an airframe total time of 23,121.8 hours. Since that time, the helicopter had accrued a total of 22.9 hours.

A review of the flight load manifest revealed that the airplane was under its maximum gross weight and within the allowable center of gravity limits at the time of the accident.

METEOROLOGICAL INFORMATION

Weather reported at Smith Airport (SLG), near Siloam Springs, Arkansas, approximately 10 miles southeast of the accident site, at 1335, included wind from 050 degrees at 7 knots, visibility 10 statute miles, clear skies, temperature 61 degrees Fahrenheit, dewpoint 46 degrees Fahrenheit, and a barometric pressure setting of 30.01 inches of Mercury.

One of Air Evac Lifeteam's pilots, who responded to the helicopter accident scene, reported that the wind in the surrounding area most of that day were from 030 to 050 degrees at 10 knots or less. He said the wind at the accident site were about the same, "as best [as he] could tell."

WRECKAGE AND IMPACT INFORMATION

The helicopter came to rest upright in a grass field on a heading of 172 degrees, approximately 100 yards southeast from where it had departed at an elevation of approximately 1,000 feet mean sea level (msl).

Both skids were spread their maximum distance, and the fuselage of the helicopter was resting flat on the ground. The aft skid cross-tube had pushed upward into the lower fuselage of the aircraft and ruptured the fuel cell. According to the Arkansas State Trooper, a significant amount of jet fuel surrounded the helicopter shortly after the accident.

The main rotor system including both blades, the tail boom, and tail rotor were relatively intact.

The engine, transmission, and tail rotor drive shaft panels were removed. The tail rotor #1 drive shaft (forward short shaft) was torsionally sheared and had separated into two sections. These pieces were found resting on the engine deck beneath the engine. Examination of the fractured ends revealed the steel drive shaft was twisted at the fracture points, indicative of the engine operating at the time of impact.

The engine fuel-filter canister contained a clear-colored liquid, that emitted an odor consistent with jet fuel, and it was absent of debris and water. The upper and lower transmission chip detectors were absent of debris or metal particles.

No preimpact mechanical anomalies were found with either the engine or the airframe.

SURVIVAL FACTORS INFORMATION

The pilot occupied the front right seat. His seat base was crushed and the frame exhibited a V-shaped deformation. His 4-point seatbelt/inertia reel shoulder harness assembly was found unlatched and both shoulder harnesses were displaced over the sides of the seatback. All seatbelt/shoulder harness attachment points were secure and the seatbelt functioned normally when tested. His injuries included compressed vertebrae, and a large cut over his right eye.

The flight nurse sat in the right aft seat. Her seat frame exhibited some deformation and cracking near the base. Her 4-point seatbelt/inertia reel shoulder harness assembly was found unlatched, and both shoulder harness straps were draped over her seatback. All seatbelt/shoulder harness attachment points were secure and the seatbelt functioned normally when tested. Her injuries included fractured vertebrae, a broken right knee and a bilateral fracture of both heel bones.

The paramedic sat in the left aft seat. His seat frame exhibited some deformation and cracking near the base. His seatbelt assembly was found unlatched, and both shoulder harness straps were rolled up and neatly placed above his seatback. The two female brackets were found placed between the firewall and interior lining. All seatbelt/shoulder harness attachment points were secure and the seatbelt functioned normally when tested. His injuries included several broken teeth, a severely fractured left orbital bone, right tibia/fibula fractures, pelvic fractures, torn ligaments in his right ankle, L4-L5 fractured vertebrae, and right shoulder injury. The paramedic was the only occupant wearing a helmet. The helmet was cracked on its left side and exhibited some blood splatter. Air Evac Leasing Corporation does not require flight crews to wear helmets, nor does the FAA require them.

The patient was loaded into the airplane on a backboard and strapped down to an aluminum litter, which was located on the left side of the helicopter. According to the paramedic, the patient's feet were loaded toward the front of the helicopter, and his head was facing aft toward the rear of the aircraft. In this configuration, the patient's head would have been slightly situated between the paramedic's knees. Examination of the litter revealed that is was partially displaced from its mounting brackets, and the base of the litter had partially separated from its frame. The base was riveted to the frame, and several of the rivets had sheared. The base was also deformed.

In a telephone conversation, the Benton County Coroner stated that the patient sustained facial

injuries, including a cracked skull, crushed trachea (had filled with blood), and flattened facial features, from the helicopter accident. She had interviewed EMS personnel who responded to the vehicle accident site, and they reported that the patient's injuries were visible bleeding from an ear, and that he was combative, but no facial injuries. He may also have sustained a broken hip and abrasions to his arms and body. The Coroner also reported that she had retained recorded data from the patient's heart monitor, which indicated that the patient was stable when he was placed in the helicopter. At the time of the accident, the patient's vital signs spiked and then "dramatically" dropped off. EMS personnel, who witnessed the accident, immediately started CPR on him and attempted to place a trachea tube down his throat, but it was filled with blood. EMS personnel also reported that the patient had a heart rate of six beats per minutes, and they were unable to revive him. The coroner's report suspected that the patient's primary cause of death was a skull fracture and the secondary cause of death was a suspected fractured trachea.

After the helicopter accident, an employee of the Bentonville Fire and Ambulance contacted Air Evac Leasing Corporation and reported the accident. He requested that two more helicopters be sent to the scene to transport the surviving occupants to area hospitals.

According to the Survival Factors Specialist's Factual Report, Air Evac Leasing Corporation policies OP-0280 and OP-0281, issued March 1, 2004, provided guidance for the crews pertaining to the use of seat restraints, "to provide for safe operations during all phases of the Air Evac Lifeteam Flight Program's pre-flight, flight, and landing procedures." OP-0280 stated that crews were to check the functionality of all safety belts and shoulder harnesses at the start of each shift. Additionally, the medical crew was to have "seat belts/shoulder harnesses on for take-off and landing (NO EXCEPTIONS)." OP-0281 stated "all flight crew/team members must wear seat belts continuously during the flight…if critical patient care necessitates removal of the seat belts, the pilot will be notified." It also stated "the use of shoulder harnesses is highly recommended during the flight and is required during take-off and landing."

Air Evac Leasing Corporation flight operations bulletin #004-2004, dated March 4, 2004, described Air Evac Lifeteam's medical crewmember aircraft orientation and safety training programs. It stated that "Air Evac Lifeteam will conduct an aircraft orientation and operational safety training for all medical crewmembers upon hiring and continue monthly at the base of assignment throughout the calendar year." The training manual contained 17 individual text lessons and all were to be completed in a 12-month cycle. Lesson #17 (scheduled for each April) was titled, "Passenger Briefing When Appropriate," and contained the following statement: "Use of seat belts… is mandatory and the seat belt and shoulder harness must be worn at all times. The only exception to the seatbelt and/or shoulder harness rule for a crewmember is if the seatbelt or shoulder harness interferes with the performance of necessary duties. To have seat belt or shoulder harness released, it must be because of a medical emergency and not for convenience."

The pilot, flight nurse and paramedic stated that they were familiar with the operator's mandatory requirement that they had to wear their restraints during take off and landing. All

three stated that they were wearing their available restraints (seatbelt and shoulder harness) at the time of the accident.

According to the pilot, neither medical flight crew had requested to take their seatbelt or shoulder harness off prior to or during the take off sequence. Everything was normal and neither crewmember had informed him of a problem with the patient. However, prior to departure he could not recall if the paramedic and flight nurse stated that they had given the normal "ready to go" verbal announcement. In addition, he did not visually confirm that they were wearing their restraints, since there "was no reason to question them." According to the operator, all of their aircraft that they had refurbished in the past five years, including the accident helicopter, had four-point, single inertia reel restraint systems installed at all seating stations.

Both aft restraints (inertia reels and lap belts) from the accident helicopter were removed and sent to the manufacturer for post-accident inspection and testing under the supervision of a Safety Board investigator. At the time of the testing, none of the webbings or components exhibited any scuffing, fraying, broken fibers, tears or deformation. Both inertia reels passed calibration testing.

According to a witness, who was standing approximately 100 yards from the helicopter when it impacted the ground, he said that he immediately ran to the helicopter and arrived within 30 seconds of the accident. When he arrived, he observed the pilot still "strapped" into his seat, and the flight nurse was lying outside of the helicopter on the ground. He thought that she may have been ejected from the helicopter but was not certain; however, all of the doors on the right side of the aircraft were open or missing. The witness eventually walked around to the left side of the helicopter and observed the paramedic standing on the ground, "propped" up against the doorframe near his seat. Another witness, who was also standing about 100 yards away from where the helicopter came to rest, also responded immediately after it impacted the ground. According to the witness, the flight nurse was lying on the ground outside her door and he was "definitely" sure that, "she was ejected upon impact. I saw it." He described her door as "bowing out" and opening on impact, which allowed her to be thrown free from the helicopter. The pilot remained restrained in his seat. The flight paramedic was also outside the helicopter, when he was instructed to move away from the helicopter due to the large amount of fuel leaking from the helicopter.

ADDITIONAL INFORMATION

On October 31, 1983, Bell Helicopter published an Operations Safety Notice regarding loss of tail rotor effectiveness in the Model 206B and similar airframes. Bell Helicopter describes the phenomenon of loss of tail rotor effectiveness as "Unanticipated Right Yaw." According to the Safety Notice: "When maneuvering between hover and 30 mph: Be aware that a tail wind will reduce relative wind speed if a down wind translation occurs. If loss of translational lift occurs it can result in a high power demand and an additional anti-torque requirement. Be alert during hover (especially OGE) and high power demand situations. Be alert during hover in winds of

about 8-12 knots (especially OGE) since there are no strong indications to the pilot, to the possibility of a reduction of translational lift. This reduction results in an unexpected high power demand and increased anti-torque requirements. Be aware that if a considerable amount of left pedal is being maintained, that a sufficient amount of left pedal may not be available to counteract an unanticipated right yaw. Be alert to changing aircraft flight and wind conditions such as experienced when flying along ridgelines and around buildings. Observe the relative wind conditions set out in the attached chart."

A relative wind chart published by the manufacturer (and found in the accident helicopter) depicts a helicopter facing 360 degrees over a compass rose. One shaded area of the chart depicts winds from between 050 degrees and 210 degrees. According to a note on the chart: "Tail rotor control and/or engine temperature (TOT) may preclude operation in AREA B of the Hover Ceiling Charts when the relative wind is in the Critical Wind Azimuth Area."

According to FAA Advisory Circular (AC) 90-95, "Any maneuver which requires the pilot to operate in a high power, low airspeed environment with a left crosswind or tailwind creates an environment where unanticipated right yaw may occur." The AC also advised of greater susceptibility for loss of tail rotor effectiveness (LTE) in right turns and the phenomena may occur in varying degrees in all single main rotor helicopters at airspeeds less than 30 knots.

According to the manufacturer, if a sudden unanticipated right yaw occurs, the following recovery technique should be performed:

1. Pedal - Full left; simultaneously, cyclic - forward to increase speed.

2. As recovery is effected, adjust controls for normal forward flight. CAUTION Collective pitch reduction will aid in arresting the yaw rate, but may cause an excessive rate of descent. The subsequent large rapid increase in collective to prevent ground contact may further increase the yaw rate and decrease rotor rpm. The decision to reduce collective must be based on the pilot's assessment of the altitude available for recovery.

3. If the spin cannot be stopped and ground contact is imminent, an autorotation may be the best course of action. Maintain full left pedal until the spin stops, then adjust to maintain heading.

The helicopter wreckage was released to an representative of the owner's insurance company on June 6, 2006.

Pilot Information

Certificate:	Commercial	**Age:**	53,Male
Airplane Rating(s):	Single-engine land	**Seat Occupied:**	Right
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	No
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim	**Last FAA Medical Exam:**	December 13, 2004
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	January 20, 2005
Flight Time:	3502 hours (Total, all aircraft), 15 hours (Total, this make and model), 697 hours (Pilot In Command, all aircraft), 15 hours (Last 90 days, all aircraft), 15 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Bell	**Registration:**	N5734M
Model/Series:	206-L1	**Aircraft Category:**	Helicopter
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	45449
Landing Gear Type:	Skid	**Seats:**	4
Date/Type of Last Inspection:	February 17, 2005 AAIP	**Certified Max Gross Wt.:**	4150 lbs
Time Since Last Inspection:	4.1 Hrs	**Engines:**	1 Turbo shaft
Airframe Total Time:	23135.2 Hrs at time of accident	**Engine Manufacturer:**	Allison
ELT:	Installed, activated, did not aid in locating accident	**Engine Model/Series:**	250-C28B
Registered Owner:	AIR EVAC LEASING CORPORATION	**Rated Power:**	500 Horsepower
Operator:	Air Evac Lifeteam	**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	EVCA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual (VMC)	**Condition of Light:**	Day
Observation Facility, Elevation:	SLG,1198 ft msl	**Distance from Accident Site:**	10 Nautical Miles
Observation Time:	13:35 Local	**Direction from Accident Site:**	120°
Lowest Cloud Condition:	Clear	**Visibility**	10 miles
Lowest Ceiling:	None	**Visibility (RVR):**	
Wind Speed/Gusts:	3 knots / None	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	50°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.01 inches Hg	**Temperature/Dew Point:**	16°C / 8°C
Precipitation and Obscuration:	No Obscuration; No Precipitation		
Departure Point:	Gentry, AR (NONE)	**Type of Flight Plan Filed:**	Company VFR
Destination:	SPRINGDALE, AR (NONE)	**Type of Clearance:**	None
Departure Time:	13:37 Local	**Type of Airspace:**	Class E

Airport Information

Airport:	None	**Runway Surface Type:**	Grass/turf
Airport Elevation:		**Runway Surface Condition:**	Dry;Soft
Runway Used:		**IFR Approach:**	None
Runway Length/Width:		**VFR Approach/Landing:**	Forced landing

Wreckage and Impact Information

Crew Injuries:	3 Serious	**Aircraft Damage:**	Substantial
Passenger Injuries:	1 Fatal	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal, 3 Serious	**Latitude, Longitude:**	36.324722,-94.579444

Administrative Information

Investigator In Charge (IIC):	Yeager, Leah
Additional Participating Persons:	Mike Church; FAA/FSDO; Little Rock, AR Stuart Buckingham; Air Evac Corporation; West Plains, MO Harold Barrentine; Bell Helicopter-Textron; Fort Worth, TX Michael Weber; Rolls-Royce Corporation; Indianapolis, IN Christine Soucy; FAA/AAI-100; Washington, DC
Original Publish Date:	October 3, 2006
Last Revision Date:	
Investigation Class:	Class
Note:	The NTSB traveled to the scene of this accident.
Investigation Docket:	https://data.ntsb.gov/Docket?ProjectID=61041