Aviation Investigation Final Report

Location:	Parker, Colorado	**Accident Number:**	DFW05FA202
Date & Time:	August 4, 2005, 02:06 Local	**Registration:**	N454MA
Aircraft:	Mitsubishi MU-2B-60	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	1 Fatal
Flight Conducted Under:	Part 135: Air taxi & commuter - Non-scheduled		

Analysis

The commercial pilot was executing a precision instrument approach at night in instrument meteorological conditions when the airplane collided with terrain about four miles short of the runway. A review of air traffic control communications and radar data revealed the pilot was vectored onto the final approach course but never got established on the glide slope. Instead, he made a controlled descent below the glide slope as he proceeded toward the airport. When the airplane was five miles from the airport, a tower controller received an aural low altitude alert generated by the Minimum Safe Altitude Warning (MSAW) system. The tower controller immediately notified the pilot of his low altitude, but the airplane collided with terrain within seconds. Examination of the instrument approach system and onboard flight navigation equipment revealed no pre-mishap anomalies. A review of the MSAW adaptation parameters revealed that the tower controller would only have received an aural alarm for aircraft operating within 5 nm of the airport. However, the frequency change from the approach controller to the tower controller occurred when the airplane was about 10.7 miles from the airport, leaving a 5.7 mile segment where both controllers could receive visual alerts, but only the approach controller received an aural alarm. A tower controller does not utilize a radar display as a primary resource for managing air traffic. In 2004, the FAA changed a policy, which eliminated an approach controller's responsibility to inform a tower controller of a low altitude alert if the tower had MSAW capability. The approach controller thought the MSAW alarm parameter was set 10 miles from the airport, and not the 5 miles that existed at the time of the accident. Subsequent investigation revealed, that The FAA had improperly informed controllers to ensure they understood the alarm parameters for control towers in their area of responsibility. This led the approach controller to conclude that the airplane was no longer her responsibility once she handed it over to the tower controller. Plus, the tone of the approach controller's aural MSAW alarm was not sufficient in properly alerting her of the low altitude alert.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's failure to fly a stabilized instrument approach at night which resulted in controlled flight into terrain. Contributing factors were; the dark night, low clouds, the inadequate design and function of the airport facility's Minimum Safe Altitude Warning System (MSAW), and the FAA's inadequate procedure for updating information to ATC controllers.

Findings

Occurrence #1: IN FLIGHT COLLISION WITH TERRAIN/WATER
Phase of Operation: APPROACH - FAF/OUTER MARKER TO THRESHOLD (IFR)

Findings
1. TERRAIN CONDITION - RAVINE
2. (C) UNSTABALIZED APPROACH - CONTINUED - PILOT IN COMMAND
3. (F) WEATHER CONDITION - CLOUDS
4. (C) PROPER GLIDEPATH - NOT OBTAINED - PILOT IN COMMAND
5. (F) LIGHT CONDITION - NIGHT
6. (F) RADAR,MSAW
7. (F) UNSAFE/HAZARDOUS CONDITION WARNING - NOT ISSUED - ATC PERSONNEL(DEP/APCH)
8. (F) PROCEDURE INADEQUATE - FAA(OTHER/ORGANIZATION)
9. (F) RADAR,MSAW
10. (F) FACILITY,INADEQUATE DESIGN - FAA(OTHER/ORGANIZATION)

Factual Information

HISTORY OF FLIGHT

On August 4, 2005, approximately 0206 mountain daylight time, a twin-engine Mitsubishi MU-2B-60 turbo-prop airplane, N454MA, was destroyed upon impact with terrain near Parker, Colorado, while on an instrument approach to the Centennial Airport (APA), near Denver, Colorado. The instrument rated commercial pilot, sole occupant of the airplane, was fatally injured. The airplane was registered to and operated by Flight Line, Incorporated, of Watkins, Colorado. An instrument flight rules (IFR) flight plan was filed for the flight that originated at Salt Lake City International Airport (SLC), near Salt Lake City, Utah, approximately 0040. Night instrument meteorological conditions prevailed for the on-demand air cargo flight conducted under 14 Code of Federal Regulations Part 135.

A review of air traffic control communications revealed that the pilot received radar vectors to intercept the localizer course for the instrument landing system (ILS) RWY 35R approach and was instructed to maintain an altitude of 8,000 feet mean sea level (msl) until established on the localizer course. When the airplane was approximately four miles south of CASSE intersection (the final approach fix), an approach controller cleared the flight for the instrument approach. The pilot acknowledged the clearance and shortly after he was instructed to contact Centennial Tower.

At 0204:46, the pilot contacted Centennial Tower, but there was no response. He tried again at 0205:05.

At 0205:19, a tower controller responded and cleared the flight to land on Runway 35R. The pilot acknowledged. This was the last radio communication received from the flight.

A review of the radar data revealed an IFR target, positively identified as the accident aircraft, was approaching the airport from the southwest. The last two minutes of radar data revealed the flight was turning toward the north at an altitude of 7,900 feet msl at a ground speed of 140 knots.

As the flight approached CASSE intersection, the airplane was observed on radar descending to an altitude of 7,200 feet msl, while it remained at a ground speed of 140 knots. After crossing CASSE intersection, the airplane continued to track the localizer to the north, as it continued to descend below the glide slope until the data ended at 0206:36.

At 0206:40, a tower controller alerted the pilot to "...check altitude...your altitude indicates six thousand four hundred...you appear to be well below the glide slope." The pilot did not respond. The tower controller then made several attempts to contact the pilot but there was

no response.

The last radar return was received approximately four miles south of the landing threshold of the runway at an altitude of 6,400 feet msl, still at a groundspeed of 140 knots, at approximately 39 degrees, 29 minutes north latitude and 104 degrees, 50 minutes west longitude.

The accident occurred at night in a remote area. There were no reported eyewitnesses to the accident.

PERSONNEL INFORMATION

The pilot held a commercial pilot certificate with ratings for single-engine land, multi-engine land, rotorcraft-helicopter, instrument airplane and instrument helicopter. His most recent Federal Aviation Administration (FAA) second-class medical certificate was issued on January 6, 2005. At that time, the pilot reported having accumulated a total of 4,800 flight hours. The operator reported that the pilot flew approximately 70 hours per month, and had accrued approximately 1,200 hours in the same make and model.

According to the operator, the pilot's last Part 135 airmen competency-proficiency check was completed during March 2005.

AIRCRAFT INFORMATION

The Mitsubishi MU-2B-60 (s/n:1535SA) was a pressurized, high performance, twin-engine turboprop, which was configured to carry cargo at the time of the accident. Examination of maintenance records revealed that the airplane had undergone a 200-hour inspection on July 12-15, 2005. At that time, the airframe total time was 12,576.9 hours since new. The airplane had accrued 43.3 hours since the last inspection. The last one-year inspection was performed on September 30, 2004.

As of July 15, 2005, the left engine, a Honeywell TPE331-10-511M, had accrued a total of 9,074.9 hours since new, and 5,373.9 since overhaul. The engine had been installed on the airplane on December 12, 2004.

As of July 15, 2005, the right engine, also a Honeywell TPE331-10-511M, had accrued 12,910.4 hours since new, and 3,800.0 since overhaul. The engine was installed on the airplane on May 31, 2005.

METEOROLOGICAL INFORMATION

Weather reported at Centennial Airport, at 0153, was wind from 360 degrees at 9 knots, visibility 3 statute miles, rain, mist, scattered clouds at 800 feet, broken clouds at 1,600 feet, overcast ceiling at 2,500 feet, temperature 15 degrees Fahrenheit, dew point 14 degrees

Fahrenheit, with a barometric pressure setting of 30.37 inches of Mercury.

Weather reported at 0205 was wind from 010 degrees at 8 knots, visibility 2.5 statute miles, rain, mist, ceiling broken at 1,000 feet, broken clouds at 1,600 feet, overcast ceiling at 2,200 feet, temperature 15 degrees Fahrenheit, dew point 14 degrees Fahrenheit, and a barometric pressure setting of 30.38 inches of Mercury. The ceiling was reported to vary between 600 to 1,300 feet. The tower visibility was reported as 4 statute miles.

Weather reported at 0211, was wind from 010 degrees at 7 knots, visibility 3 statute miles, rain, mist, scattered clouds at 700 feet, broken clouds at 1,200 feet, overcast at 2,200 feet, temperature 15 degrees Fahrenheit, dew point 14 degrees Fahrenheit, and a barometric pressure setting of 30.38 inches of Mercury. The tower visibility was reported as 4 statute miles.

Review of weather radar images taken between 0203 and 0208, revealed weak to moderate weather radar echoes in the vicinity of the accident site. Moderate to strong weather radar echoes were also present about 5 to 10 nautical miles south of the accident site. The tops of the echoes were reported at 30,000 feet.

AIDS TO NAVIGATION

The published inbound course for the ILS RWY 35R approach was 347 degrees magnetic, with the published DH decision height of 6,083 feet msl. The crossing altitude for the final approach fix (CASSE intersection) was 7,974 feet msl. The distance between CASSE and the missed approach point, which was the middle marker, was 5.9 nautical miles (nm). The middle marker was located 0.4 nm from the end of the runway. The airport elevation was 5,883 feet msl.

The published weather minimums for the ILS RWY 35R approach were a 200-foot ceiling and a half-mile visibility.

Following the accident, the FAA temporarily suspended use of the ILS RWY 35R approach procedure. After consulting with FAA Western Terminal Service Unit management, ILS operations were resumed at 0925. The next aircraft to fly the approach was instructed to report any discrepancies with the approach, and to immediately execute a missed approach if he noticed any unusual indications. The pilot successfully completed the approach at 0930, and reported no difficulties.

At 1420, FAA Technical Services personnel checked and recertified the ILS system as fully operational and within acceptable operational tolerances.

On August 6, 2005, the FAA conducted a post-accident flight check, which also found the ILS system to be operating normally and within acceptable operational tolerances.

AIR TRAFFIC CONTROL

A Safety Board Air Traffic Control (ATC) Specialist performed an investigation into the operational procedures and communications that transacted between the pilot, the Denver Terminal Radar Approach Control (TRACON) controller, and the Centennial Airport tower controller. The Specialist also examined the hardware and software utilized by these controllers to manage air traffic. The investigation included collecting information on the accident sequence, Minimum Safe Altitude Warning (MSAW) software adaptation documentation, reviewing air traffic controller training folders, and observing a radar replay of the airplane's approach into Centennial Airport.

According to the Safety Board ATC Specialist's Report, the approach controller stationed at the facility, which handled the accident airplane, had followed standard FAA procedures for vectoring the airplane to the ILS RWY 35R final approach course, and ensured that the pilot had the current weather information. The ILS glide slope intercept altitude was suitable, and should not have prevented the pilot from flying a stabilized approach.

The pilot reported receiving automated terminal information service (ATIS) information "Whiskey", which was the current and correct automated terminal information system (ATIS) broadcast. The controller also properly advised the pilot to expect the ILS RWY 35R approach, and vectored the airplane to intercept the ILS RWY 35R localizer on heading 020 degrees, which met the FAA standard for intercept angle.

A reconstruction of the accident sequence revealed that the pilot contacted the approach controller at Denver TRACON after entering the Denver area from the northwest. The pilot was vectored to the ILS RWY 35R final approach course and cleared for the approach about 0203. About a minute later, when the airplane was about 10 miles from the airport, the pilot was instructed to contact the tower at Centennial Airport. As the airplane continued inbound on the ILS approach, it descended below the glide slope. At 0205:37, the Denver TRACON MSAW visual alert and aural alarm activated for about 5 seconds and again from 0206:00 until terrain impact about 42 seconds later. The airplane was about 7.2 and 6.3 nm from the airport, respectively, when the MSAW alerts at Denver TRACON activated. Because of the MSAW software configuration at Denver TRACON, Centennial Tower was not eligible to receive aural MSAW alarms for any aircraft more than 5 nm from the airport. As a result, the controller at Centennial Tower only received visual alerts when the MSAW alerts activated at Denver TRACON. When the airplane reached a point 5 nm from Centennial Airport at 0206:35, the ongoing MSAW visual alert then caused an aural alarm in the tower. The tower controller immediately transmitted a low altitude alert to the pilot, but the airplane impacted terrain within seconds.

FAA Operational Procedures Regarding MSAW Alerts

In February 2004, the FAA revised FAA Order 7110.65 Chapter 2-1-6: Safety Alert, which eliminated the obligation for an approach controller to alert a pilot of an MSAW alert once the

airplane entered the tower's aural alarm area. In an interview, the Denver approach controller stated that she thought the tower aural alarm area extended to 10 miles from Centennial Airport, instead of the 5 nm limit that was actually in effect at the time of the accident. Based on that, along with the FAA's revised policy on responsibility for issuance of safety alerts, the approach controller stated that MSAW alerts involving aircraft operating within 10 nm of the airport and on the tower's frequency were the tower's responsibility. She also stated that she did not hear or see the MSAW alerts generated by N454MA. The first MSAW alert commenced when the aircraft was about 7.2 nm from Centennial Airport, 2.2 nm outside the tower's aural alarm boundary. Even if the approach controller had heard or seen the MSAW alerts, FAA policy did not require her to respond to them.

The aural MSAW alarm received by the approach controller consisted of a tone that came from a speaker on the left side of her radar display console. The visual alert consisted of two blinking "LA" (low altitude) characters above the airplane's data block, which was displayed on the controller's radar screen. The tower controller received the same visual data on his radar display, but the Centennial Airport control tower was configured with two speakers located in the tower cab, and when tested, the MSAW aural alarm was a much louder tone than the one received by the approach controller.

Air traffic control tower MSAW aural alarm requirements were instituted following a previous safety recommendation noting that visual-only alerts to tower controllers were ineffective. Tower controllers are not obligated or encouraged to continuously monitor the radar display because their attention needs to be directed to the airport surface and appropriate surrounding airspace. The aural alarm was added to attract controller attention to the radar display when necessary, such as when an MSAW or conflict alert occurred, so that the controller(s) could react in a timely manner.

However, a review of the Automated Radar Terminal System (ARTS) Site Data File for the Denver TRACON facility, which contains information on software adaptation parameters affecting functions such as MSAW performance, revealed that at the time of the accident the Centennial Airport tower controller would only have received an aural alarm for aircraft operating within 5 nm of the airport. The frequency change from the approach controller to Centennial Tower occurred when N454MA was about 10.7 nm from the airport, leaving a 5.7 nm segment where both controllers could receive visual alerts, but only the approach controller could receive an aural alarm. A review of the ILS RWY 35 approach plate indicated the outer marker for the approach was 7.1 nm from the airport, and Denver TRACON procedures required aircraft to be instructed to contact the tower outside of the outer marker.

AIRPORT INFORMATION

Centennial Airport was a public, controlled airport located approximately 15 miles southeast of Denver, Colorado, at 39 degrees, 34 minutes north latitude, and 104 degrees, 50 minutes west longitude, at a surveyed elevation of 5,883 feet. Runway 35R was a 10,002-foot-long and 100-foot-wide asphalt runway, which was equipped with a 2-box vertical approach slope indicator

(VASI) system, medium intensity runway lighting (MIRL), and a medium intensity approach lighting system with runway alignment indicator lights (MALSR).

WRECKAGE AND IMPACT INFORMATION

The wreckage of the airplane was examined at the accident site on August 4-5, 2005. All major aircraft components were accounted for at the scene. The aircraft came to rest in the inverted position with the nose of the airplane resting on the bottom of a 20-foot deep ravine, at a ground elevation of approximately 6,328 feet msl, approximately four miles south of the landing threshold for Runway 35R. The accident occurred during the hours of night approximately 39 degrees, 29 minutes north latitude and 104 degrees, 50 minutes west longitude.

The initial impact point was a series of three ground scars located on the top of a ridgeline, about 600 feet south from where the main wreckage came to rest, at an approximate elevation of 6,350 feet msl. These ground scars were oriented on a magnetic heading of 348 degrees and were consistent with those made by the airplane's extended three landing gear. The terrain located just to the north of these scars decreased in elevation and the descending slope was covered with standing trees and brush. Some of the trees limbs were severed.

Approximately 320 feet forward of the initial impact point, the airplane contacted a second ridge that was partially covered in standing trees, brush, and high grass, at an elevation of approximately 6,328 feet msl. A large portion of the trees had been severed, and the brush and grass were flattened in the direction toward the main wreckage. Numerous tree limbs were severed and exhibited angular cuts with black paint transfer.

A 37-foot-long ground scar ran parallel to the downed tree limbs and in the direction of the main wreckage. Imbedded in this scar was the outboard fin (strake) from the right wing tip tank. Scattered along the wreckage path from the second impact point to where the main wreckage came to rest were the aft portion of the left wing tip tank, an outboard section of the left wing, part of the left horizontal stabilizer, a right main landing gear door, the left main landing gear, small pieces of aircraft structure, the landing light, and the air data computer.

The main wreckage included the cockpit, fuselage, empennage, tail section, right wing, right wing tip tank, and the remaining portion of the left wing.

The right engine was found partially separated from the wing. All four-propeller blades were connected to the hub, and were bent aft and curled opposite of the direction of rotation. One of the blades was bent aft and was partly concealed under the engine, and one blade tip was severed at the leading edge. Each of the blades contained shallow leading edge gouges and chord-wise scratches. The right engine first stage impeller had one vane corner separated; with the remaining material bent opposite the direction of rotation. There was a large amount of debris in the engine inlet, and metal spray on the third stage turbine rotor. The starter generator input shaft was sheared, and the fuel pump housing was fractured.

The left wing was severed from the main wing assembly approximately half way between the fuselage attach point and the left engine. The remaining portion of the left wing and left engine were located approximately 135 feet forward of the main wreckage. The left wing segment was found upside down with the left engine still attached. All four-propeller blades were found in the hub. Two of the blades tips were missing and the other two blades were intact. All four blades were bent opposite the direction of rotation, and exhibited deep leading edge gouges and chord-wise scratches. Two of the first stage impeller vanes were separated at the corners with the remaining material bent opposite the direction of rotation at the inducer. There was debris (dirt) in the inlet, and wood chips were lodged in the inlet housing.

Control cable continuity was established from the cockpit to all the flight controls. The elevator control cable was severed at mid-cabin, and the both of the fractured ends exhibited broom straw signatures, consistent with overload. The rudder trim cable had separated at a swedge point. Both of the rudder and elevator trim actuators were found driven to the stops.

The flap handle was found set in the 5-degree detent, which was consistent with the measurement taken from the flap actuator/jackscrews in each wing.

The rudder trim was set to neutral, and the elevator trim was set to "green line", or 5 degrees nose up.

The main fuel valves were visually inspected and found to be open, and the fuel totalizer indicated 1,012 pounds. The condition levers were full forward in the takeoff/landing position.

The left power lever was full forward, and the right power lever was below the ground idle setting, and bent to the right.

The run crank stops were both in the run setting, and the air start-and-safe was in the center position.

The right SRL was in the on position and the left SRL was in the off position.

The cockpit engine instruments showed the torque to be 102 percent for the right engine, and 98 percent for the left engine. The left engine oil pressure was 50 psi, and the right indicated 45 psi. The vertical speed indicator displayed -300 feet per minute.

The altimeter was found set to 30.37 inches of Mercury and indicated an elevation of 6,380 feet msl. The pilot's horizontal situation indicator (HSI) indicated a 347-degree setting, and displayed both the heading and vertical warning flags. The co-pilot's HSI displayed a heading of 355 degrees, and the vertical warning flag. The front glass plate was broken out and the case was damaged. Both navigational receivers (Nav 1 and Nav 2) were found tuned to the localizer frequency.

The ignition system was found in the "auto" position. The main fuel tank was ruptured and empty, but the indicator was found reading 980 pounds.

COMPONENT TESTING

On August 23, 2005, the pilot's HSI, Attitude Director Indicator (ADI), and altimeter, along with the co-pilot HSI were tested/examined at the Honeywell Dallas Support Center, near Irving, Texas, under the supervision of the Safety Board.

The glass faceplate/bezel of the pilot's HSI was shattered, but the unit was intact and the exterior case was removed. Internal examination revealed no impact damage and powered was applied to the unit. After power was applied, the unit was tested in accordance to Honeywell's integrated test procedures for the glide slope only as outlined in the component maintenance manual. The unit tested within specifications, but the glide slope deviation pointer was slightly out of balance and drooped approximately one-half needle width when set to zero. The vertical and nav flags, and course deviation indicator (CDI) functioned normally. The glide slope deviation needle was also operative and moved freely and smoothly through its full range of travel.

The ADI exhibited external damage and the glass bezel was shattered. The protective case was removed and internal examination revealed impact damage to the synchronization servos and the gears. Due to this damage, power could not be applied to the unit. However, there were no mechanical anomalies noted that would have precluded the unit from operating at the time of the accident.

The pilot's altimeter was intact and the case was removed. Internal examination revealed no impact damage, and power was applied. After power was applied, the unit was tested in accordance to Honeywell's integrated test procedures as outlined in the component maintenance manual. No anomalies were noted.

The co-pilot HSI exhibited extensive impact, the faceplate was missing, and the protective case was partially pulled away from the face of the unit. The relay board was broken in half and power could not be applied to the unit. The glide slope flag was intact, but was bent aft and to the right side of the unit. No mechanical anomalies were noted.

PATHOLOGICAL DATA

The Douglas County Coroner's Office, Castle Rock, Colorado, conducted an autopsy on the pilot on August 6, 2005. The cause of death was determined to be, "massive bodily injuries secondary to blunt force trauma sustained in the airplane accident."

The FAA's Accident Research Laboratory, Oklahoma City, Oklahoma, conducted toxicological testing. The results were negative for all items tested.

ADDITIONAL DATA

The wreckage was released to a representative of the owner's insurance company on January 26, 2006.

Pilot Information

Certificate:	Commercial	**Age:**	59,Male
Airplane Rating(s):	Single-engine land; Multi-engine land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	Helicopter	**Restraint Used:**	
Instrument Rating(s):	Airplane; Helicopter	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 With waivers/limitations	**Last FAA Medical Exam:**	January 1, 2005
Occupational Pilot:	Yes	**Last Flight Review or Equivalent:**	March 1, 2005
Flight Time:	4800 hours (Total, all aircraft), 1200 hours (Total, this make and model), 4600 hours (Pilot In Command, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Mitsubishi	**Registration:**	N454MA
Model/Series:	MU-2B-60	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	
Airworthiness Certificate:	Normal	**Serial Number:**	1535SA
Landing Gear Type:	Retractable - Tricycle	**Seats:**	2
Date/Type of Last Inspection:	July 1, 2005 100 hour	**Certified Max Gross Wt.:**	11575 lbs
Time Since Last Inspection:		**Engines:**	2 Turbo prop
Airframe Total Time:	12575 Hrs as of last inspection	**Engine Manufacturer:**	Garrett
ELT:	Installed, not activated	**Engine Model/Series:**	TPE-331
Registered Owner:	Flight Line, Inc.	**Rated Power:**	750 Horsepower
Operator:		**Operating Certificate(s) Held:**	None
Operator Does Business As:		**Operator Designator Code:**	VOXA

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument (IMC)	**Condition of Light:**	Night
Observation Facility, Elevation:	APA,5883 ft msl	**Distance from Accident Site:**	4 Nautical Miles
Observation Time:	02:05 Local	**Direction from Accident Site:**	350°
Lowest Cloud Condition:	Unknown	**Visibility**	2.5 miles
Lowest Ceiling:	Broken / 1000 ft AGL	**Visibility (RVR):**	
Wind Speed/Gusts:	9 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	10°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	30.37 inches Hg	**Temperature/Dew Point:**	15°C / 14°C
Precipitation and Obscuration:	N/A - None - Rain		
Departure Point:	Salt Lake City , UT (SLC)	**Type of Flight Plan Filed:**	IFR
Destination:	Denver, CO (APA)	**Type of Clearance:**	IFR
Departure Time:	00:40 Local	**Type of Airspace:**	

Airport Information

Airport:	Centennial Airport APA	**Runway Surface Type:**	
Airport Elevation:	180 ft msl	**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	ILS
Runway Length/Width:		**VFR Approach/Landing:**	None

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:		**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	39.4925,-104.846664

Administrative Information

Investigator In Charge (IIC):	Yeager, Leah
Additional Participating Persons:	David Keenan; FAA AAI-100; Washington, DC Ralph Sorrels; Mitsubishi Heavy Industries America, Inc; Addisont, TX Jim Stermer; Mitsubishi Heavy Industries America, Inc.; Addison, TX David E Studtmann; Honeywell; Phoenix, AZ Tony Mulei; American Check Transport Inc/Flight Line ; Denver, CO
Original Publish Date:	December 28, 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=62124