National Transportation Safety Board
Aviation Accident Final Report

Location:	Argyle, TX	**Accident Number:**	CEN15FA136
Date & Time:	02/04/2015, 2109 CST	**Registration:**	N441TG
Aircraft:	CESSNA 441	**Aircraft Damage:**	Substantial
Defining Event:	Loss of control in flight	**Injuries:**	1 Fatal
Flight Conducted Under:	Part 91: General Aviation - Personal		

Analysis

The instrument-rated commercial pilot was approaching the destination airport after a cross-country flight in night instrument meteorological conditions. According to radar track data and air traffic control communications, while receiving radar vectors to the final approach course, the pilot did not always immediately comply with assigned headings and, on several occasions, allowed the airplane to descend below assigned altitudes. According to airplane performance calculations based on radar track and GPS data, the pilot made an engine power reduction about 2.5 minutes before the accident as he maneuvered toward the final approach fix. Following the engine power reduction, the airplane's airspeed decreased from 162 to 75 knots calibrated airspeed, and the angle of attack increased from 2.7° to 14°. About 4 miles from the final approach fix, the airplane descended below the specified minimum altitude for that segment of the instrument approach. The tower controller subsequently alerted the pilot of the airplane's low altitude, and the pilot replied that he would climb. At the time of the altitude alert, the airplane was 500 ft below the specified minimum altitude of 2,000 ft mean sea level. According to airplane performance calculations, 5 seconds after the tower controller told the pilot to check his altitude, the pilot made an abrupt elevator-up input that further decreased airspeed, and the airplane entered an aerodynamic stall. A witness saw the airplane abruptly transition from a straight-and-level flight attitude to a nose-down, steep left bank, vertical descent toward the ground, consistent with the stall. Additionally, a review of security camera footage established that the airplane had transitioned from a wings-level descent to a near-vertical spiraling descent. A postaccident examination of the airplane did not reveal any anomalies that would have precluded normal operation during the accident flight.

Although the pilot had monocular vision following a childhood injury that resulted in very limited vision in his left eye, he had passed a medical flight test and received a Statement of Demonstrated Ability. The pilot had flown for several decades with monocular vision and, as such, his lack of binocular depth perception likely did not impede his ability to monitor the cockpit instrumentation during the accident flight.

The pilot had recently purchased the airplane, and records indicated that he had obtained make and model specific training about 1 month before the accident and had flown the airplane about 10 hours before the accident flight. The pilot's instrument proficiency and night currency could not be determined from the available records; therefore, it could not be determined whether a lack of recent instrument or night experience contributed to the pilot's difficulty in maintaining control of the airplane.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to maintain adequate airspeed during the instrument approach in night instrument meteorological conditions, which resulted in the airplane exceeding its critical angle of attack and an aerodynamic stall/spin at a low altitude.

Findings

Aircraft	Airspeed - Not attained/maintained (Cause) Angle of attack - Not attained/maintained (Cause)
Personnel issues	Aircraft control - Pilot (Cause) Monitoring equip/instruments - Pilot

Factual Information

History of Flight

Approach-IFR initial approach	not used Loss of control in flight (Defining event) Aerodynamic stall/spin
Uncontrolled descent	Collision with terr/obj (non-CFIT)

On February 4, 2015, about 2109 central standard time, a Cessna 441 (Conquest II) twin turboprop airplane, N441TG, was substantially damaged when it collided with terrain following a loss of control during an instrument approach to Denton Municipal Airport (DTO), Denton, Texas. The commercial pilot was fatally injured. The airplane was registered to Del Air Enterprises II, LLC, and was operated by the pilot under the provisions of 14 *Code of Federal Regulations* Part 91 while on an instrument flight rules (IFR) flight plan. Night instrument meteorological conditions prevailed for the cross-country flight that departed Willmar Municipal Airport (BDH), Willmar, Minnesota, about 1828.

According to Federal Aviation Administration (FAA) air traffic control data, at 2050:46, the pilot established contact with Dallas-Fort Worth Terminal Radar Approach Control and reported being level at 4,000 ft mean sea level (msl). According to radar data, the flight was about 35 miles northwest of DTO and was established on a southbound course. The approach controller issued the current weather conditions at DTO and told the pilot to expect the GPS runway 36 approach. At 2052:54, the approach controller told the pilot to fly direct to WOBOS, an intermediate fix associated with the instrument approach. The plotted radar data showed that the flight turned to the south-southeast to a direct course toward WOBOS. At 2059:35, the flight was cleared to descend to and maintain 3,000 ft msl, and the pilot acknowledged the altitude clearance.

At 2101:24, the DTO tower controller advised the approach controller that a Cessna 172 had just landed at DTO and that the Cessna's pilot reported light-to-moderate turbulence during approach and an in-flight visibility of about 1.5 miles. The approach controller subsequently advised the accident pilot of the light-to-moderate turbulence. At 2103:08, the flight was cleared to descend to and maintain 2,500 ft msl, and the pilot acknowledged the altitude clearance.

At 2103:24, the approach controller told the pilot to turn to a south heading. The pilot acknowledged the heading change and subsequently turned southbound. According to radar data, at 2104:09, the airplane descended below 2,500 ft msl. At 2104:27, the approach controller told the pilot to turn to an east heading. The pilot acknowledged the heading change, but, according to radar data, did not initiate the turn as requested. The airplane continued to descend while on a southbound course until reaching 2,100 ft msl at 2104:46 when it began to climb. At 2104:59, after noticing that the flight had not turned to the assigned heading, the approach controller told the pilot to turn to a heading of 080°. The pilot acknowledged the assigned heading, and radar data showed the flight entering a climbing left turn toward the

east.

At 2105:39, when the flight was 8 miles from the final approach fix (NULUX), the approach controller told the pilot to turn to a heading of 030° to intersect the final approach course, to maintain 2,500 ft msl until established on the final approach course, and that the flight was cleared for the GPS runway 36 approach. The pilot responded, "Okay, 030 maintain 2.5 until established on the approach." According to radar data, the flight turned to a north heading instead of the assigned heading of 030°.

At 2106:16, the approach controller told the pilot to contact the DTO tower controller, and the pilot replied with the correct frequency change. The flight continued due north until 2106:38, when it turned to a 030° course and subsequently descended through 2,500 ft msl at 2107:01. At 2107:16, the pilot established communications with the DTO tower controller. The tower controller told the pilot that the surface wind was 360° at 19 knots with 25 knot gusts and then cleared the flight to land on runway 36. The tower controller also asked the pilot if he had received the pilot report (PIREP) that had been issued by the preceding Cessna 172. The pilot confirmed that he had received the PIREP from the approach controller. According to radar data, the airplane continued to descend as it intersected the final approach course and continued northbound toward NULUX.

At 2108:44, the automated air traffic control system issued a low altitude alert for the accident flight. The system presented the low altitude alert on both the control tower and the approach control radar displays. According to radar data, at the time of the low altitude alert, the airplane had descended to about 1,500 ft msl. At 2108:47, the tower controller told the pilot to "... check your altitude, you are still a couple of miles from the marker [NULUX], and uh believe your altitude should be about 2,100 there." At 2108:54, the pilot replied, "Okay, going back to (unintelligible)." According to radar data, following the altitude alert, the airplane continued to descend until the final radar return, recorded at 2109:11, about 2.5 miles south of NULUX at 1,000 ft msl (about 300 ft above the ground). At 2109:12, the tower controller transmitted again that the airplane was lower than the specified minimum altitude (2,000 ft msl) for that segment of the instrument approach. There was no response from the accident pilot.

The flight path of the airplane was captured by a security video camera installed on the exterior of a building that was located about 1/2 mile southeast of the accident site. The video camera, which was facing west, captured the accident airplane's wingtip navigation and strobe lights as the airplane crossed from left to right in the upper portion of the camera's field of view. The airplane entered the camera's field of view at 2108:48 and appeared to be in a wings level descent as it continued across the first half of the camera's lateral field of view. At 2109:00, the descent angle increased substantially before the airplane entered a near-vertical spiraling descent. The airplane's navigational lights and strobes were not visible after 2109:09.

According to 911 emergency calls received following the accident, several individuals reported hearing an airplane overfly their position at a low altitude followed by the sound of a large ground impact. One witness, who was located about 1 mile from the accident site, reported that he saw an airplane's navigation lights and rotating beacon as it flew north below an overcast ceiling toward DTO. The witness stated that the airplane abruptly transitioned from a straight-

and-level flight attitude to a nose-down, steep left bank, vertical descent towards the ground. He also heard a momentary increase and then decrease in engine power before the airplane entered the descent. The witness lost sight of the airplane as it descended behind trees shortly before he heard a sound consistent with a ground impact.

Pilot Information

Certificate:	Commercial	**Age:**	52, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Lap Only
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 With Waivers/Limitations	**Last FAA Medical Exam:**	01/13/2014
Occupational Pilot:	No	**Last Flight Review or Equivalent:**	08/13/2013
Flight Time:	(Estimated) 4935 hours (Total, all aircraft), 4899 hours (Pilot In Command, all aircraft)		

According to FAA records, the 52-year-old pilot held a commercial pilot certificate with single-engine land, multi-engine land, and instrument airplane ratings. The pilot's last aviation medical examination was completed on January 13, 2014, when he was issued a second-class medical certificate with a limitation for corrective lenses. On the application for his current medical certificate, the pilot reported having accumulated 3,900 hours of total flight experience of which 120 hours were flown within the previous 6 months. A search of FAA records showed no previous accidents, incidents, or enforcement proceedings.

A comprehensive pilot logbook was not located during the investigation. A pilot journal was found in the accident airplane; however, the final journal entry was for simulator-based training for a Socata TBM 700 airplane that was completed on an unspecified date during 2014. The final journal entry indicated that the pilot had a total flight experience of 4,935 hours of which 4,899 hours were flown as pilot-in-command and that he had flown 4,834 hours in single-engine airplanes and 101 hours in multiengine airplanes. The journal also contained a flight instructor's endorsement for a flight review and instrument proficiency check dated August 13, 2013. The pilot's estate provided an airplane utilization spreadsheet that the pilot used to log his recent flight experience. The spreadsheet did not document the pilot's instrument proficiency, night currency, or his accumulated total flight experience. According to the spreadsheet, the pilot had flown 56 hours during the previous 6 months, 23.6 hours during the previous 90 days, and 9.7 hours during the previous 30 days. The pilot's first flight in the accident airplane was on January 23, 2015. As of the final spreadsheet entry, dated January 25, 2015, the pilot had flown the accident airplane 9.7 hours.

The pilot completed simulator-based training for the Cessna 441 on March 27, 2014, at

SimCom Training Centers, located in Grapevine, Texas. On January 4, 2015, the pilot completed additional Cessna 441 training provided by Executive Flight Training, Beaufort, South Carolina.

Aircraft and Owner/Operator Information

Aircraft Make:	CESSNA	**Registration:**	N441TG
Model/Series:	441	**Aircraft Category:**	Airplane
Year of Manufacture:	1981	**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	441-0200
Landing Gear Type:	Retractable - Tricycle	**Seats:**	7
Date/Type of Last Inspection:	08/22/2014, AAIP	**Certified Max Gross Wt.:**	9850 lbs
Time Since Last Inspection:	62 Hours	**Engines:**	2 Turbo Prop
Airframe Total Time:	3830.2 Hours at time of accident	**Engine Manufacturer:**	Honeywell
ELT:	C91A installed, activated, did not aid in locating accident	**Engine Model/Series:**	TPE331-10N
Registered Owner:	Del Air Enterprises II, LLC	**Rated Power:**	715 hp
Operator:	Del Air Enterprises II, LLC	**Operating Certificate(s) Held:**	None

The accident airplane was a 1981 Cessna 441 (Conquest II), serial number 441-0200. Two Honeywell TPE331-10N-512S turbine engines provided thrust through constant-speed, full-feathering, four-blade, McCauley 4HFR34C661/90LNA-2 propellers. The low-wing airplane was of conventional aluminum construction and was equipped with a retractable tricycle landing gear and a pressurized cabin that was configured to seat seven individuals. The airplane was approved for night operations in instrument meteorological conditions and for flight in known icing conditions. On April 5, 1984, the airplane was issued a standard airworthiness certificate and a registration number when it was imported back to the United States of America after being based and operated in France. The pilot purchased the airplane on January 22, 2015.

According to the current weight-and-balance record, dated January 3, 2011, the airplane had an empty weight of 5,855 pounds (lbs), a maximum takeoff weight of 9,850 lbs, and a useful load at takeoff of 3,995 lbs. The airplane had a total fuel capacity of 481.5 gallons (475 gallons usable) distributed between two wing fuel tanks. According to fueling documentation, the airplane departed on the accident flight with a full fuel load after being topped-off with Jet-A fuel premixed with an icing inhibitor.

The airplane had been maintained under the provisions of an approved manufacturer

inspection program. The recording hour (Hobbs) meter indicated 2,070.2 hours at the accident site. The airplane had accumulated 3,830.2 hours since new. The airplane had accumulated 62.4 hours since the last phase inspection that was completed on August 22, 2014, at 3,767.8 total airframe hours. The engines had accumulated 35.4 hours since their last 100-hour inspections that were completed on October 22, 2014. The engines, serial numbers P-77413 and P-77421, had accumulated a total service time of 3,830.2 hours since new and 2,303.5 hours since being overhauled. The propellers, serial numbers 972373 and 972370, had accumulated a total service time of 2,303.5 hours since new and 284.6 hours since being overhauled. A postaccident review of the maintenance records found no history of unresolved airworthiness issues.

Meteorological Information and Flight Plan

Conditions at Accident Site:	Instrument Conditions	**Condition of Light:**	Night
Observation Facility, Elevation:	DTO, 642 ft msl	**Distance from Accident Site:**	7 Nautical Miles
Observation Time:	2103 CST	**Direction from Accident Site:**	180°
Lowest Cloud Condition:		**Visibility**	2 Miles
Lowest Ceiling:	Overcast / 900 ft agl	**Visibility (RVR):**	
Wind Speed/Gusts:	17 knots / 25 knots	**Turbulence Type Forecast/Actual:**	/ Clear Air
Wind Direction:	350°	**Turbulence Severity Forecast/Actual:**	/ Moderate
Altimeter Setting:	30.26 inches Hg	**Temperature/Dew Point:**	3°C / 3°C
Precipitation and Obscuration:	Light - Rain; Mist		
Departure Point:	Willmar, MN (BDH)	**Type of Flight Plan Filed:**	IFR
Destination:	Denton, TX (DTO)	**Type of Clearance:**	IFR
Departure Time:	1828 CST	**Type of Airspace:**	Class E

At 2103, the DTO automated surface observing system reported: wind 350° at 17 knots, gusting 25 knots; an overcast ceiling at 900 ft above ground level (agl); 2 miles surface visibility with light rain and mist; temperature 3°C; dew point 3°C; and an altimeter setting of 30.26 inches of mercury.

The pilot of a Cessna 172 that landed at DTO about 8 minutes before the accident issued a pilot report (PIREP) for light-to-moderate turbulence and an inflight visibility of 1.5 miles during his approach.

The United States Naval Observatory data indicated that the sunset and end of civil twilight at the accident site were at 1803 and 1829, respectively. The moon was in a waxing gibbous phase, with 99% of the moon's visible disk illuminated; however, the moonlight would have been obscured by the overcast ceiling.

Airport Information

Airport:	Denton Municipal Airport (DTO)	**Runway Surface Type:**	Asphalt
Airport Elevation:	642 ft	**Runway Surface Condition:**	Wet
Runway Used:	36	**IFR Approach:**	Global Positioning System
Runway Length/Width:	7002 ft / 150 ft	**VFR Approach/Landing:**	None

Denton Municipal Airport (DTO), a public airport located about 3 miles west-southwest of Denton, Texas, was owned and operated by the City of Denton. The airport field elevation was 642 ft msl. The airport had a single asphalt runway, runway 18/36 (7,002 ft by 150 ft). Runway 36 had a displaced threshold that reduced the available runway landing length by 100 ft. Runway 36 was equipped with medium intensity runway lights and a four-light precision approach path indicator. The airport was equipped with an air traffic control tower that was operational at the time of the accident.

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Substantial
Passenger Injuries:	N/A	**Aircraft Fire:**	None
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	1 Fatal	**Latitude, Longitude:**	33.086667, -97.199722

The airplane wreckage was found in a grass-covered industrial storage yard located about 6.4 nm south of the runway 36 threshold. The accident site was about 400 ft northeast of the final radar return and about 207 ft right of the final approach course. The main wreckage consisted of the entire airplane, which was orientated on a west-northwest heading. The elevation of the accident site was 679 ft msl. The wreckage was in an upright position, and there was no appreciable wreckage debris path. There was no evidence of an inflight or postimpact fire. All observed airframe structural separations were consistent with impact-related damage. The entire lower fuselage surface was crushed upward, consistent with a vertical impact while in a near level pitch attitude. The airplane's tail section was found partially separated immediately aft of the aft pressure bulkhead. The vertical stabilizer, rudder, horizontal stabilizers, and elevators remained relatively undamaged. The leading edges of both wings, the propeller spinners, and the airframe radome did not exhibit evidence of a ground impact.

Aileron control cable continuity was established through an overstress separation of the aileron sector drive cable in the mid-cabin area and a separation of the balance cable near the right wing root. All other flight control cables were continuous from the cockpit control inputs to

their respective flight control surfaces. The elevator trim actuators measured 1.6 inches, which corresponded to the trailing-edge of the elevator trim tab being deflected up about 5°. The aileron trim actuator measured 1.1 inches, which corresponded to the trailing-edge of the aileron trim tab being deflected down about 5°. The rudder trim actuator measured 2.4 inches, which corresponded to the trailing-edge of the rudder trim tab being deflected right about 5°. The landing gear were found extended. The landing gear selector handle was damaged during impact. The flap actuator measured 5.7 inches, which was consistent with a 10° flap extension. The flap selector handle and indicator were damaged during impact. The stall warning horn and landing gear warning horn were extracted from the cockpit, and both horns produced an aural tone when electrical power was applied. Switch continuity for the wing-mounted lift sensor was confirmed with an ohmmeter. The left-side altimeter's Kollsman window was centered on 30.24 inches-of-mercury. The right-side altimeter's Kollsman window was centered on 30.09 inches-of-mercury.

Both engines remained attached to their respective wing nacelle structures. The first stage compressor impeller of each engine exhibited blade tip bends that were opposite the direction of rotation and visible scoring as a result of the rotating compressor impeller contacting its respective shroud. The third axial turbine stage of each engine exhibited re-solidified metallic splatter on the stator vanes and turbine blades. The observed damage to the first compressor stage and third turbine stage was consistent with each engine operating at the time of impact. Both propeller assemblies remained attached to their respective engines. There were two approximately 12-inch deep holes observed aside and slightly behind the engines where the rotating propellers had dug into the soil during impact. Both propellers exhibited significant bending of their blades opposite the direction of rotation. Additionally, all propeller blades exhibited leading edge gouges, chordwise scratches, and burnishing of the cambered side.

The postaccident wreckage examination did not reveal any anomalies that would have precluded normal operation of the airplane during the accident flight.

Aids To Navigation

The published inbound course for the GPS runway 36 approach was 357° magnetic; the crossing altitude for the final approach fix (NULUX) was 2,000 ft msl; and the distance between NULUX and the runway threshold was 4.2 nautical miles (nm). After crossing NULUX, lateral-navigation (LNAV)-equipped aircraft descended to 1,300 ft msl until crossing the stepdown fix (SHIEV) that is located 2 nm from the end of runway 36. After crossing SHIEV, LNAV-equipped aircraft descended to the minimum descent altitude of 1,040 ft msl (413 feet agl). The instrument approach minimums required a 1-mile inflight visibility at the missed approach point to continue the landing. The missed approach instructions were to climb on runway heading to 4,000 ft msl, proceed direct to the ZITAG waypoint, then turn left and proceed direct to the CRAFF waypoint and hold.

Communications

A review of available air traffic control information indicated that the accident flight received normal services and handling. Transcripts of the voice communications recorded between the accident pilot, the approach controller, and the tower controller are included in the docket materials associated with the investigation.

Medical And Pathological Information

The Tarrant County Medical Examiner's Office, located in Fort Worth, Texas, performed an autopsy on the pilot. The cause of death was attributed to multiple blunt-force injuries sustained during the accident. The FAA's Bioaeronautical Sciences Research Laboratory located in Oklahoma City, Oklahoma, performed toxicology tests on samples obtained during the autopsy. The test results were negative for carbon monoxide, ethanol, and all tested drugs and medications.

The pilot had monocular vision following a childhood injury that resulted in very limited vision in his left eye. On June 18, 1991, after a review by an ophthalmologist and passing a medical flight test, the pilot was issued a Statement of Demonstrated Ability (SODA) that authorized a third-class medical certificate. On June 24, 1995, the pilot was issued an updated SODA after he passed another medical flight test and was authorized for a second-class medical certificate. The pilot continued to routinely receive second-class medical certificates with a limitation for corrective lenses.

Tests And Research

The airplane was equipped with a Honeywell KMH-820 Multi-Hazard Awareness System, serial number 1340. With the assistance of the manufacturer, the non-volatile memory was downloaded from the damaged device. The recovered data identified two alerts that had been issued during the accident flight. The first alert was issued when the airplane's flight path came near a tower during the final seconds of the flight. The airplane was located about 361 ft south of the accident site and about 700 ft west of the tower when the obstacle pull-up (OBPU) alert was issued. The airplane was at a GPS altitude of 1,030 ft (about 330 ft agl) and 46.7 knots groundspeed. The OBPU would have resulted in an audible alert "Obstacle, Obstacle, Pull-Up." The second alert was for an excessive sink rate; however, additional data was not recorded to non-volatile memory before there was a loss of electrical power to the device during impact.

The pilot's Apple iPhone, Apple iPad, and Appareo Stratus II were recovered at the accident site and sent to the National Transportation Safety Board (NTSB) Vehicle Recorders Laboratory to be examined. The content of the Apple iPhone and Apple iPad were examined using forensic software, and there was no data found that was associated with the accident flight. The Appareo Stratus II was an automatic dependent surveillance broadcast (ADS-B) device with GPS capability. The device had been configured to interface with the pilot's iPad ForeFlight application. An external examination of the device revealed minor impact damage;

however, an internal examination revealed additional damage to the Wi-Fi module. The device was repaired and examined using laboratory hardware and software. The device contained flight parameter data for the accident flight.

The recovered Appareo Stratus II flight parameters and recorded ATC radar track data were used to develop an aircraft performance study. According to the study, at 2106:38, during the approach, the pilot made an engine power reduction that resulted in a 1,500 ft per minute descent and a 25 knot per minute airspeed deceleration. Between 2106:38 and 2109:00, the airplane's airspeed decreased from 162 to 75 knots calibrated airspeed (KCAS), and the angle of attack increased from 2.7° to 14°. At 2108:52, 5 seconds after the tower controller told the pilot to check his altitude, the pilot made an abrupt elevator-up input that increased the airspeed deceleration to 168 knots per minute. At 2109:00, the airplane entered an aerodynamic stall after it decelerated to 75 KCAS.

Additional Information

According to first responders with the Argyle Fire Department, upon their arrival at the accident site, there was no evidence of ice or frost accumulation on the airplane's fuselage, wings, or tail. Additionally, the first responders reported that there was a substantial smell of Jet-A fuel at the accident site; however, there was no evidence of an explosion or postimpact fire. The pilot was seated in the left cockpit seat and was secured by a lap belt. The available shoulder harness did not appear to have been used.

According to the FAA Airplane Flying Handbook (FAA-H-8083-3B), "Night flying is very different from day flying and demands more attention of the pilot. The most noticeable difference is the limited availability of outside visual references. Therefore, flight instruments should be used to a greater degree in controlling the airplane." The handbook further states, "Distance may be deceptive at night due to limited lighting conditions. A lack of intervening references on the ground and the inability to compare the size and location of different ground objects cause this. This also applies to the estimation of altitude and speed. Consequently, more dependence must be placed on flight instruments, particularly the altimeter and the airspeed indicator."

Administrative Information

Investigator In Charge (IIC):	Andrew T Fox	**Adopted Date:**	05/11/2017
Additional Participating Persons:	Tony Baumgard; Federal Aviation Administration, North Texas FSDO; Irving, TX Ernest Hall; Textron Aviation; Wichita, KS David Studtmann; Honeywell Aerospace; Phoenix, AZ		
Publish Date:	05/11/2017		
Note:	The NTSB traveled to the scene of this accident.		
Investigation Docket:	http://dms.ntsb.gov/pubdms/search/dockList.cfm?mKey=90692		