National Transportation Safety Board
Aviation Accident Final Report

Location:	Temple, TX	**Accident Number:**	FTW02FA070
Date & Time:	01/17/2002, 1522 CST	**Registration:**	N339S
Aircraft:	Cessna 340A	**Aircraft Damage:**	Destroyed
Defining Event:		**Injuries:**	3 Fatal, 2 Serious
Flight Conducted Under:	Part 91: General Aviation - Business		

Analysis

While on an IFR clearance, the pilot reported to approach control that he was unable to maintain 4,000 feet msl, and did not give a reason. Shortly there after, the pilot contacted approach control and stated that he had "fuel starvation" in the right engine and the left engine had just quit. Radar data depicted the aircraft at an altitude of 3,400 feet. The controller asked the pilot if they were completely without power, and the pilot responded, "yes, we're now gliding." The controller gave the pilot instructions to the nearest airport, which was approximately 4.5 nautical miles away. After passing 2,100 feet, the pilot informed the controller that he would be landing short. During the forced landing, the airplane struck the top of a tree, crossed over a house, struck another tree, struck a telephone wire which crossed diagonally over a street, and then cleared a set of wires which paralleled the street. The airplane then impacted a private residence within a residential area, and a fire erupted damaging the airplane and the private residence. Ten gallons of fuel were drained from the left locker tank, which supplements the left main fuel tank. Examination of the airframe and engines did not disclose any structural or mechanical anomalies that would have prevented normal operation. Examination of the propeller revealed that neither propeller had been feathered.

Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot's mismanagement of fuel, which resulted in a total loss of engine power due to fuel starvation. Contributing factors were the pilot's failure to follow the checklist to feather the propellers in order to reduce drag.

Findings

Occurrence #1: LOSS OF ENGINE POWER(TOTAL) - NONMECHANICAL
Phase of Operation: CRUISE

Findings
1. ALL ENGINES
2. (C) FLUID,FUEL - STARVATION
3. (C) FUEL MANAGEMENT - IMPROPER - PILOT IN COMMAND
4. (F) PROPELLER SYSTEM/ACCESSORIES,FEATHERING SYSTEM - NOT ENGAGED
5. (F) CHECKLIST - NOT FOLLOWED - PILOT IN COMMAND

Occurrence #2: FORCED LANDING
Phase of Operation: DESCENT - EMERGENCY

Occurrence #3: IN FLIGHT COLLISION WITH OBJECT
Phase of Operation: EMERGENCY DESCENT/LANDING

Findings
6. OBJECT - TREE(S)
7. OBJECT - WIRE,TRANSMISSION
8. OBJECT - RESIDENCE

Factual Information

HISTORY OF FLIGHT

On January 17, 2002, at 1522 central standard time, a Cessna 340A twin-engine airplane, N339S, was destroyed when it impacted trees and a private residence during a forced landing following a loss of engine power near Temple, Texas. The airplane was registered to and operated by a private individual, but maintained and operated from Jet Service of Houston, Texas. The commercial pilot and two passengers sustained fatal injuries, and two passengers sustained serious injuries. Visual meteorological conditions prevailed, and an instrument flight rules (IFR) flight plan was filed and activated for the 14 Code of Federal Regulations Part 91 business flight for the Abundant Life Christian Church of La Marque, Texas. The cross-country flight originated from the Houston Gulf Airport (SPX), League City, Texas, at 1416, and was destined for Killeen, Texas.

Earlier in the day the pilot performed a preflight examination of the airplane, and had 61 gallons of fuel added to the wing tip tanks (main fuel tanks). The flight departed Houston's William P. Hobby Airport (HOU), approximately 1030, to take a passenger to Killeen, Texas. The cruise altitude for this flight was 6,000 feet msl. After arriving at the Killeen Municipal Airport (ILE), the passenger deplaned, and the pilot had the wing tip fuel tanks (main tanks) topped off (52.97 gallons). Approximately 1256, the flight departed Killeen for SPX. The cruise altitude for this flight was 7,000 feet msl. At 1355, the flight arrived at its destination.

At 1357:31, the pilot contacted the Montgomery County Flight Service Station by telephone to file an IFR flight plan for the return flight to ILE. The pilot stated the flight would take 1.0 hour and there would be four persons on board (five were on board). At 1410, the pilot contacted clearance delivery, and at 1414, N339S was released for departure. With five persons on board, the flight departed for ILE. The cruise altitude for this flight was 8,000 feet msl. The pilot did not refuel the airplane while at SPX.

The following are from the radio communication transcript between the pilot (N339S) and Robert Gray Army Radar Approach Control (GRK) and radar data provided by Houston Air Route Traffic Control Center.

15:10:31 N339S - Gray Approach, Three Three Nine Sierra checking in Six Thousand Six Hundred for Six Thousand.

15:10:34 GRK - Three Three Nine Sierra affirmative Six Thousand. Killeen AWOS available One Two Eight point Five Seven. You can expect the ILS Runway One approach, Killeen.

15:10:41 N339S - Yes sir, we have the AWOS and will look for the ILS One into Killeen.

15:12:23 GRK - Three Nine Sierra, fly heading Two Six Zero, vectors to final approach course.

15:12:28 N339S - Two Six Zero, Three Three Nine Sierra.

15:15:50 GRK - Three Nine Sierra, turn left heading Two Five Zero, descend and maintain Five Thousand.

15:15:54 N339S - Five Thousand, left to Two Five Zero, Three Nine Sierra.

15:17:52 - Radar data depicts N339S at an altitude of 4,100 feet msl.

15:18:02 N339S - Approach, Three Nine Sierra (unintelligible) did we understand Four

Thousand and Uh, continue Two Five Zero.

15:18:08 GRK - Three Three Nine Sierra, your assigned altitude was Five Thousand, Uh, maintain Four Thousand and Uh, continue Two Five Zero.

15:18:16 N339S - Two Five Zero, Four Thousand, Three Nine Sierra.

15:19:43 - Radar data depicts N339S at an altitude of 3,800 feet msl.

15:19:46 N339S - Three Three Nine Sierra just wondering if you might start us down.

15:19:50 GRK - Three Nine Sierra negative, maintain Four Thousand.

15:19:53 - Radar data depicts N339S at an altitude of 3,700 feet msl.

15:19:54 N339S - OK sir, looks like we're gonna be unable to maintain Four Thousand feet and Uh, need to start on down if we could and head to the airport.

15:20:05 GRK - Three Nine Sierra, you have a problem?

15:20:06 N339S - Uh, I'm trying to work through it, but I'll keep you posted.

15:20:11 GRK - Three Nine Sierra, what's the nature of your difficulty?

15:20:16 N339S - Uh, there's no difficulty.

15:20:18 GRK - You're on an IFR clearance, why are you unable to maintain altitude?

15:20:23 N339S - Uh, fuel starvation on my right engine. Now my left engine has just quit. Radar data depicts N339S at an altitude of 3,400 feet msl.

15:20:27 GRK - Three Nine Sierra roger. Uh, keep advised. Are you completely without power now?

15:20:33 N339S - Yes, we're gliding. Radar data depicts N339S at an altitude of 3,200 feet msl.

15:20:36 GRK - Three Nine Sierra turn right heading Three Four Zero Uh, Temple Airport will be Twelve o'clock and Four miles.

15:20:38 N339S - Three Four Zero.

15:20:43 - Radar data depicts N339S at an altitude of 2,900 feet msl.

15:20:57 N339S - Gray, we're looking for Temple now. What direction is it?

15:21:00 GRK - Three Three Nine Sierra, Temple Airport is Three Four Zero degrees now at Four and a half miles.

15:21:03 - Radar data depicts N339S at an altitude of 2,100 feet msl.

15:21:12 N339S - OK sir, looks like we're going to land short.

15:21:24 GRK - Three Nine Sierra Uh, say number of personnel on board.

15:21:26 N339S - (Mike keyed - Unintelligible).

15:21:34 - Radar data depicts N339S at an altitude of 1,600 feet msl.

15:21:35 GRK - Three Nine Sierra if Uh, you can hear me I'm not hearing you. Uh, we do have help on the way sir.

15:21:43 N339S - Thank you sir.

15:21:45 GRK - And Uh, I heard you that time, say number of personnel on board.

15:21:47 N339S - Yes, we have Four people on board.

1521:49 GRK - Roger.

There were no further communications with the pilot, and the last radar hit was at 15:22:14, at an altitude of 600 feet msl.

During the forced landing to the east, the airplane struck the top of a tree, crossed over a house, struck another tree, struck a telephone wire which crossed diagonally over a street, and then cleared a set of wires which paralleled the street. As the airplane continued between two trees, it struck the tree on the right with its right wing. The airplane then impacted a private residence, and a fire erupted damaging the airplane and the private residence.

One surviving passenger stated, "it was like we were having engine problems" and "the pilot was on the radio and said they were coming in short." The other surviving passenger stated they were getting ready to land and were in some clouds. They hit some turbulence and "as we dropped below the clouds, the engines were sputtering like the plane was out of gas."

PERSONNEL INFORMATION

According to FAA records, the pilot held a commercial pilot certificate for single-engine and multiengine land airplanes with an instrument rating. The pilot was type rated in the Cessna Citation 500. The pilot held a second class medical certificate, which was issued on December 17, 2001. The medical certificate stipulated a limitation to have corrective lenses available for near vision while operating an aircraft.

A review of the pilot's flight logbooks revealed that on August 23, 2000, he completed pilot-in-command proficiency and instrument checks, which meet the requirement for a biennial flight review. The logbook and accident aircraft flight manifest revealed that as of December 3, 2001 (last entry in logbook), the pilot had logged a total flight time of 3,463.7 hours and 1,981.1 hours were in multiengine airplanes, of which 10.1 hours were in the same make and model of the accident airplane.

The pilot was the chief pilot for the Abundant Life Christian Church.

AIRCRAFT INFORMATION

The 1979-model Cessna 340A, serial number 340A-0712, was a twin-engine, low wing, retractable landing gear, pressurized, semimonocoque construction airplane. The airplane was powered by two six-cylinder, air-cooled, horizontally opposed, Continental TSIO-520-NB (serial number 516362 and 514761) engines, rated at 310 horsepower. The airplane was configured to carry a maximum of six occupants.

The airplane was issued a standard airworthiness certificate on May 31, 1979, and was certificated for normal category operations. The airplane's current registration was issued on March 11, 1996. A review of the airframe logbooks revealed that the airframe underwent its most recent annual inspection on May 11, 2001, at a total airframe time of 5,877.1 hours and a Hobbs time of 203.5 hours. On June 10, 2001, at a hobbs time of 206.2 hours, due to the right auxiliary tank gauge dropping to zero on occasions, the right wing main and auxiliary fuel tanks were defueled, wiring and probes checked and fuel system was calibrated. The auxiliary gauge still occasionally dropped to zero, therefore the right auxiliary fuel tank was placarded inoperative (no placard was found during the aircraft examination). The last entry in the

airframe logbook was on January 16, 2002, at a hobbs time of 239.3 hours for changing the left alternator drive coupling , over voltage relay, and voltage regulator. The right main landing gear strut schraeder valve and seals were replaced, and the strut was serviced with nitrogen. A review of the engine logbooks revealed that the left engine underwent its most recent annual inspection on May 11, 2001, at a total engine time since new of 4,468.9 hours and 646.4 hours since major overhaul. The right engine underwent its most recent annual inspection on May 11, 2001, at a total engine time since new of 5,916.6 hours and 323.4 hours since major overhaul.

The most recent airplane weight and balance was calculated on March 23, 2001. The airplane's basic empty weight and center of gravity (CG) were 4,564 pounds (lbs) and 153.94 inches, respectively. On June 30, 1997, at an aircraft total time of 5,563.8 hours vortex generators were installed on the wings and vertical stabilizer and strakes on the engine nacelles, therefore the maximum takeoff weight was increased to 6,290 lbs.

Considering the occupants, baggage, and estimated fuel (47 gallons main tanks, 20 gallons auxiliary tanks and 10 gallons locker tank), the calculated aircraft's gross weight at the time of departure from SPX was approximately 5,922 lbs with a CG of 157.86 inches (CG range at takeoff weight was approximately 150.2 inch to 155.8 inches). The calculated aircraft's gross weight at the time of the accident was approximately 5,640 lbs with a CG of 158.26 inches (CG range at accident weight was approximately 148.62 inch to 156.0 inches). The weights used for the occupants (872 lbs) and baggage (25 lbs) were estimated, and the fuel burn was estimated using the first leg of the flight as a reference.

The capacity of each main fuel tank was 50 gallons of usable fuel, the capacity of each auxiliary fuel tank (2) was 31.5 gallons, and the left locker fuel tank capacity was 20 gallons. Ten gallons of aviation 100LL fuel (blue) was drained from the left locker tank. The amount of fuel in the auxiliary tanks at the time of takeoff from HOU could not be established.

METEOROLOGICAL INFORMATION

At 1535, the weather observation facility at the Draughon-Miller Central Texas Regional Airport, located 4.5 nautical miles northwest of the accident site, reported the wind 360 degrees at 10 knots, overcast sky at 1,700 feet, temperature 52 degrees Fahrenheit, dew point 36 degrees Fahrenheit, and altimeter 30.08 inches of Mercury.

At 1535, the weather observation facility at the Killeen Municipal Airport, located 16 nautical miles west of the accident site, reported the wind 360 degrees at 9 knots, overcast sky at 1,600 feet, temperature 54 degrees Fahrenheit, dew point 36 degrees Fahrenheit, and altimeter 30.10 inches of Mercury.

WRECKAGE IMPACT INFORMATION

The accident site was located within a residential area at an elevation of approximately 590 feet. The airplane came to rest upright with its nose and both engines partially embedded into two rooms of the residence located at 3105 Hickory Street, Temple, Texas.

The fuselage remained in one section and exhibited fire damage to the skin and windows. The right side of the fuselage was breached from the cockpit back to the aft passenger window. The nose section was breached and compressed aft. The left wing remained attached to the fuselage; however, the section outboard of the engine nacelle was separated and exhibited fire damage. The left main fuel tank was separated from the wing and was not damaged by fire.

The auxiliary fuel bladder was separated from the wing and exhibited fire damage. The optional locker tank was not breached. The right wing was separated from the fuselage into several sections and exhibited fire damage. The auxiliary fuel bladder was separated from the wing and exhibited fire damage. The main fuel tank was breached and there was no evidence of fire damage. According to the flap sprocket and chain assembly, the split type flaps were extended approximately 30 degrees. Both the left and right ailerons were separated from their respective wings and exhibited fire damage. Aileron control continuity could not be established due to impact damage. The empennage was displaced to the right. A section of telephone line was found wedged into the empennage's ventral fin. The left horizontal stabilizer was pushed aft and partially separated from the empennage, and the right horizontal stabilizer and elevator were separated as one piece from the empennage. Elevator control cable continuity from the elevator bell crank up to the forward pulley sector in the empennage was established, and rudder control cable continuity was established from the rudder surface through the bell crank to the forward pulley sector in the empennage. Both control yokes were jammed due to impact damage; therefore cable continuity could not be established through the fuselage.

The left engine remained attached to the firewall and engine mounts. The engine was intact with all of the accessories attached. The three-bladed propeller remained attached; however, it was partially separated at the crankshaft flange. Two blades were loose in the hub. Blade one was bent toward the non-cambered side at the tip. Blade two was bent 80 degrees outboard of the center point toward the non-cambered side. Blade three was bent 80 degrees toward the non-cambered side at the shank. The right engine was separated from the firewall and engine mounts and was located within the residence. The engine was intact with all of the accessories attached. The propeller was separated from the crankshaft and all three blades were loose in the hub. Blade one had the outboard section melted away, and it was slightly bent toward the cambered side. Blade two was curled toward the direction of rotation and wrinkled near the tip. Blade three was folded 190 degrees toward the non-cambered side, and wrinkled near the tip.

The airplane was removed and transported to Air Salvage of Dallas located in Lancaster, Texas, for further examination. Both propellers were sent to McCauley Propellers Systems located in Vandalia, Ohio, for examination.

MEDICAL AND PATHOLOGICAL INFORMATION

The Southwestern Institute Of Forensic Sciences in Dallas, Texas, conducted an autopsy of the pilot. Toxicological testing was performed by the FAA Civil Aeromedical Institute's (CAMI) Forensic Toxicology and Accident Research Center at Oklahoma City, Oklahoma. The toxicological tests were positive for nonquantified amount of ephedrine, pseudoephedrine, and phenylpropanolamine detected in urine. All are common over the counter decongestants. No carbon monoxide, cyanide or ethanol was detected.

TEST AND RESEARCH

The airplane was examined at the Air Salvage of Dallas facility on January 31 and February 1, 2002, under the supervision of the NTSB investigator-in-charge. The examination revealed that the both throttle levers were full forward, the right mixture lever was full forward (full rich), the left mixture lever was at the mid range position, the right propeller lever was full forward (low pitch), and the left propeller lever was in the mid range position.

The left fuel selector handle in the cockpit was positioned between the left main and left auxiliary fuel tank positions. The left fuel selector valve was positioned to the left main tank. The valve had external fire damage and could not be bench tested for fuel flow. The right fuel selector handle was positioned full left at the lower end of the yellow arc of the left main fuel tank position (cross feed). The right fuel selector valve position could not be determined and fuel flow could not be tested due to fire damage.

Both auxiliary fuel pump toggle switches in the cockpit were in the "low" position and were not damaged. The left locker tank transfer pump toggle switch was in the "off" position and was not damaged. Both main tank transfer pumps, both main tank auxiliary pumps, the left locker tank transfer pump, and the right in-line auxiliary tank pump were functionally tested and were operational. The left in-line auxiliary tank pump exhibited fire and impact damage and could not be functionally tested.

The right engine top spark plugs and valve covers were removed and the crankshaft was rotated. Continuity was confirmed to all cylinders and to the rear of the engine. Hand compression was noted on all cylinders. Magneto timing was checked and both magnetos were found to be timed at 20 degrees before top center (BTC). Both magnetos sparked at all terminals when placed on a test bench. The left engine top spark plugs and valve covers were removed and the crankshaft was rotated. Continuity was confirmed to all cylinders except to the number one intake valve, which was being held open by the bent push rod. Continuity was confirmed to the rear of the engine. Hand compression was noted on all cylinders except number one, due to the open intake valve. Magneto timing was checked and both magnetos were found to be timed at 20 degrees before top center (BTC). Both magnetos sparked at all terminals when placed on a test bench.

On March 21, 2002, the fuel flow gage was examined and bench tested at Aero-Mach Labs, Inc., under the supervision of the FAA. The unit was tested according to manufacturer specifications. The left side was within tolerance. The right side was out of tolerance. The internal sector gears were out of alignment. Both adjustment arm assemblies were not linear. The right hairspring was lying on the sector gear and movement was hindered during the test. According to Aero-Mach Labs, Inc., the above findings could be due to impact forces.

On May 9, 2002, the propellers were examined at McCauley Propellers Systems facility under the supervision of the NTSB. According to the manufacturer, "all propeller damage was of the type associated with impact forces, with gross deflections, was of sudden failure type, and there were no indications of any type of fatigue failure. Feather stop mechanisms of each propeller were undamaged indicating mechanisms were not engaged at impact. Counterweight impact marks on hub sockets indicate blade angle of each propeller at impact at, or very near, low pitch position."

For fuel management during Cruise flight, the information manual for the Cessna 340A states: Fuel Selectors - Left engine - Left Main (Feel For Detent); Right engine - Right Main (Feel For Detent); If optional 63-gallon auxiliary tanks are installed, fuel selectors - Main Tanks for 90 minutes; Usable auxiliary fuel quantity is base on level flight; If wing locker tanks are installed, fuel selectors - Main Tanks or, after wing locker tanks are transferred and main tank quantity is less than 180 pounds each - Auxiliary Tanks; Note - Turn auxiliary fuel pumps to Low and mixtures to Full Rich when switching tanks, The auxiliary fuel tanks are to be used in cruise flight only; If wing locker tanks are installed, crossfeed - Select as required to maintain fuel balance after wing locker tank fuel transfer.

Left Wing Locker Tank - is installed in the forward portion of the left wing locker baggage area. The tank is a bladder-type cell which supplements the main tank fuel quantity. This fuel cannot be fed directly to the engines; instead it is transferred to the left main tank by a wing locker fuel transfer pump. The transfer pump is manually controlled and should not be energized until adequate volume is available in the left main tank. After the fuel is transferred, a pressure switch in the transfer line will sense a drop in pressure and illuminate the annunciator light, indicating fuel transfer is complete and the applicable wing locker transfer pump should be turned off.

For Both Engines Failure During Flight, the information manual for the Cessna 340A states: Wing Flaps - Up; Landing Gear - Up; Propellers - Feather; Cowl Flaps - Close; Airspeed - 105 KIA (See Figure 3-3); Note - Vacuum instruments will be inoperative. Electrical power available will be limited to the amount of energy contained in the battery; Landing - Refer to Forced Landing (Complete Power Loss) in this section.

Forced Landing (Complete Power Loss): Mixtures - Idle cut-off; Propellers - Feather; Fuel Selectors - Off (Feel for Detent); All Switches Except Battery - Off; Approach - 105 KIAS; If Smooth and Hard Surface: Landing Gear - Down within gliding distance of field, Wing Flaps - As Required, Battery Switch - Off, Normal Landing - Initiate. Keep nose wheel off ground as long as practical.; If Rough or Soft Surface: Landing Gear - Up, Wing Flaps - Down 15 degrees, Approach - 100 KIAS, Battery Switch - Off, Landing Attitude - Nose High.

ADDITIONAL DATA

The aircraft wreckage was released to the owner's representative on August 30, 2002.

Pilot Information

Certificate:	Commercial	**Age:**	47, Male
Airplane Rating(s):	Multi-engine Land; Single-engine Land	**Seat Occupied:**	Left
Other Aircraft Rating(s):	None	**Restraint Used:**	Seatbelt, Shoulder harness
Instrument Rating(s):	Airplane	**Second Pilot Present:**	No
Instructor Rating(s):	None	**Toxicology Performed:**	Yes
Medical Certification:	Class 2 Valid Medical--w/ waivers/lim.	**Last FAA Medical Exam:**	12/17/2001
Occupational Pilot:		**Last Flight Review or Equivalent:**	08/23/2000
Flight Time:	3464 hours (Total, all aircraft), 10 hours (Total, this make and model), 3313 hours (Pilot In Command, all aircraft), 5 hours (Last 90 days, all aircraft), 0 hours (Last 30 days, all aircraft)		

Aircraft and Owner/Operator Information

Aircraft Make:	Cessna	**Registration:**	N339S
Model/Series:	340A	**Aircraft Category:**	Airplane
Year of Manufacture:		**Amateur Built:**	No
Airworthiness Certificate:	Normal	**Serial Number:**	340A-0712
Landing Gear Type:	Retractable - Tricycle	**Seats:**	6
Date/Type of Last Inspection:	05/11/2001, Annual	**Certified Max Gross Wt.:**	6290 lbs
Time Since Last Inspection:		**Engines:**	2 Reciprocating
Airframe Total Time:	5877.1 Hours as of last inspection	**Engine Manufacturer:**	Continental
ELT:	Installed, not activated	**Engine Model/Series:**	TSIO-520-NB
Registered Owner:	Harold S. Bercu	**Rated Power:**	310 hp
Operator:	Harold S. Bercu	**Operating Certificate(s) Held:**	None

Meteorological Information and Flight Plan

Conditions at Accident Site:	Visual Conditions	**Condition of Light:**	Day
Observation Facility, Elevation:	TPL, 682 ft msl	**Distance from Accident Site:**	4 Nautical Miles
Observation Time:	1535 CST	**Direction from Accident Site:**	340°
Lowest Cloud Condition:		**Visibility**	10 Miles
Lowest Ceiling:	Overcast / 1700 ft agl	**Visibility (RVR):**	
Wind Speed/Gusts:	10 knots /	**Turbulence Type Forecast/Actual:**	/
Wind Direction:	360°	**Turbulence Severity Forecast/Actual:**	/
Altimeter Setting:	3008 inches Hg	**Temperature/Dew Point:**	11°C / 2°C
Precipitation and Obscuration:			
Departure Point:	League City, TX (SPX)	**Type of Flight Plan Filed:**	IFR
Destination:	KILLEEN, TX (ILE)	**Type of Clearance:**	IFR
Departure Time:	1416 CST	**Type of Airspace:**	Class D

Airport Information

Airport:		**Runway Surface Type:**	
Airport Elevation:		**Runway Surface Condition:**	
Runway Used:		**IFR Approach:**	
Runway Length/Width:		**VFR Approach/Landing:**	

Wreckage and Impact Information

Crew Injuries:	1 Fatal	**Aircraft Damage:**	Destroyed
Passenger Injuries:	2 Fatal, 2 Serious	**Aircraft Fire:**	On-Ground
Ground Injuries:	N/A	**Aircraft Explosion:**	None
Total Injuries:	3 Fatal, 2 Serious	**Latitude, Longitude:**	31.076667, -97.389722

Administrative Information

Investigator In Charge (IIC):	Douglas D Wigington	**Report Date:**	09/30/2003
Additional Participating Persons:	Robert Arispe; FAA FSDO; San Antonio, TX Greg Schmidt; Cessna Aircraft Company; Wichita, KS John T Kent; Teledyne Continental Motors; Mobile, AL		
Publish Date:			
Investigation Docket:	NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at pubinq@ntsb.gov, or at 800-877-6799. Dockets released after this date are available at http://dms.ntsb.gov/pubdms/.		