



# Aviation Investigation Final Report

<b>Location:</b>	Castroville, Texas	<b>Accident Number:</b>	CEN11CA438
<b>Date &amp; Time:</b>	June 24, 2011, 06:35 Local	<b>Registration:</b>	N731ST
<b>Aircraft:</b>	Cessna A188	<b>Aircraft Damage:</b>	Substantial
<b>Defining Event:</b>	Miscellaneous/other	<b>Injuries:</b>	1 None
<b>Flight Conducted Under:</b>	Part 137: Agricultural		

## Analysis

The pilot reported that he was conducting agricultural spraying operations in the airplane when the accident occurred. He stated that it was his first pass when he noticed a center pivot irrigation system ahead. His efforts to avoid hitting the irrigation system were unsuccessful. After striking the irrigation system he noted that he had almost no aileron control. He was able to use full power, full left aileron, and full left rudder to regain partial control and return to the airport for an emergency landing. As the airplane touched down the left main landing gear separated and the airplane came to rest upright resulting in substantial damage to the fuselage and flight controls. The pilot reported there were no mechanical anomalies prior to impact with the irrigation system.

## 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 obstacle clearance during the agricultural spraying flight.

### Findings

<b>Aircraft</b>	(general) - Not attained/maintained
<b>Personnel issues</b>	Aircraft control - Pilot
<b>Environmental issues</b>	Visibility - Effect on operation

## Factual Information

### History of Flight

<b>Maneuvering-low-alt flying</b>	Miscellaneous/other (Defining event)
<b>Maneuvering-low-alt flying</b>	Collision with terr/obj (non-CFIT)
<b>Post-impact</b>	Part(s) separation from AC
<b>Post-impact</b>	Flight control sys malf/fail
<b>Landing-flare/touchdown</b>	Landing gear collapse

### Pilot Information

<b>Certificate:</b>	Airline transport	<b>Age:</b>	62, Male
<b>Airplane Rating(s):</b>	Single-engine land; Multi-engine land	<b>Seat Occupied:</b>	Single
<b>Other Aircraft Rating(s):</b>	None	<b>Restraint Used:</b>	
<b>Instrument Rating(s):</b>	Airplane	<b>Second Pilot Present:</b>	No
<b>Instructor Rating(s):</b>	None	<b>Toxicology Performed:</b>	No
<b>Medical Certification:</b>	Class 2 With waivers/limitations	<b>Last FAA Medical Exam:</b>	January 15, 2011
<b>Occupational Pilot:</b>	Yes	<b>Last Flight Review or Equivalent:</b>	April 26, 2010
<b>Flight Time:</b>	(Estimated) 18800 hours (Total, all aircraft), 11000 hours (Total, this make and model), 16600 hours (Pilot In Command, all aircraft), 90 hours (Last 90 days, all aircraft), 30 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft)		

## Aircraft and Owner/Operator Information

<b>Aircraft Make:</b>	Cessna	<b>Registration:</b>	N731ST
<b>Model/Series:</b>	A188 B	<b>Aircraft Category:</b>	Airplane
<b>Year of Manufacture:</b>		<b>Amateur Built:</b>	
<b>Airworthiness Certificate:</b>	Restricted (Special)	<b>Serial Number:</b>	18803125T
<b>Landing Gear Type:</b>	Tailwheel	<b>Seats:</b>	1
<b>Date/Type of Last Inspection:</b>	November 1, 2010 Annual	<b>Certified Max Gross Wt.:</b>	4000 lbs
<b>Time Since Last Inspection:</b>	110 Hrs	<b>Engines:</b>	1 Reciprocating
<b>Airframe Total Time:</b>	8670 Hrs at time of accident	<b>Engine Manufacturer:</b>	CONTINENTAL
<b>ELT:</b>	Not installed	<b>Engine Model/Series:</b>	I0520
<b>Registered Owner:</b>	CHARLES A TORKELESON	<b>Rated Power:</b>	300 Horsepower
<b>Operator:</b>	CHARLES A TORKELESON	<b>Operating Certificate(s) Held:</b>	
<b>Operator Does Business As:</b>	TORKELESON FLYING SERVICE INC	<b>Operator Designator Code:</b>	EYJG

## Meteorological Information and Flight Plan

<b>Conditions at Accident Site:</b>	Visual (VMC)	<b>Condition of Light:</b>	Dawn
<b>Observation Facility, Elevation:</b>	KCVB,771 ft msl	<b>Distance from Accident Site:</b>	0 Nautical Miles
<b>Observation Time:</b>	06:55 Local	<b>Direction from Accident Site:</b>	360°
<b>Lowest Cloud Condition:</b>	Clear	<b>Visibility</b>	10 miles
<b>Lowest Ceiling:</b>	None	<b>Visibility (RVR):</b>	
<b>Wind Speed/Gusts:</b>	/	<b>Turbulence Type Forecast/Actual:</b>	/
<b>Wind Direction:</b>		<b>Turbulence Severity Forecast/Actual:</b>	/
<b>Altimeter Setting:</b>	29.86 inches Hg	<b>Temperature/Dew Point:</b>	21°C / 21°C
<b>Precipitation and Obscuration:</b>	No Obscuration; No Precipitation		
<b>Departure Point:</b>	Castroville, TX (CVB )	<b>Type of Flight Plan Filed:</b>	None
<b>Destination:</b>	Castroville, TX (CVB )	<b>Type of Clearance:</b>	None
<b>Departure Time:</b>	06:25 Local	<b>Type of Airspace:</b>	

## Airport Information

<b>Airport:</b>	Castroville Municipal Airport CVB	<b>Runway Surface Type:</b>	
<b>Airport Elevation:</b>	771 ft msl	<b>Runway Surface Condition:</b>	
<b>Runway Used:</b>		<b>IFR Approach:</b>	None
<b>Runway Length/Width:</b>		<b>VFR Approach/Landing:</b>	Full stop

## Wreckage and Impact Information

<b>Crew Injuries:</b>	1 None	<b>Aircraft Damage:</b>	Substantial
<b>Passenger Injuries:</b>		<b>Aircraft Fire:</b>	None
<b>Ground Injuries:</b>	N/A	<b>Aircraft Explosion:</b>	None
<b>Total Injuries:</b>	1 None	<b>Latitude, Longitude:</b>	29.338333,-98.850555(est)

## Administrative Information

<b>Investigator In Charge (IIC):</b>	Latson, Thomas
<b>Additional Participating Persons:</b>	Richard L Tarwater; FAA San Antonio FSDO; San Antonio, TX
<b>Original Publish Date:</b>	October 4, 2011
<b>Last Revision Date:</b>	
<b>Investigation Class:</b>	<a href="#">Class</a>
<b>Note:</b>	This accident report documents the factual circumstances of this accident as described to the NTSB.
<b>Investigation Docket:</b>	<a href="https://data.nts.gov/Docket?ProjectID=80961">https://data.nts.gov/Docket?ProjectID=80961</a>

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