

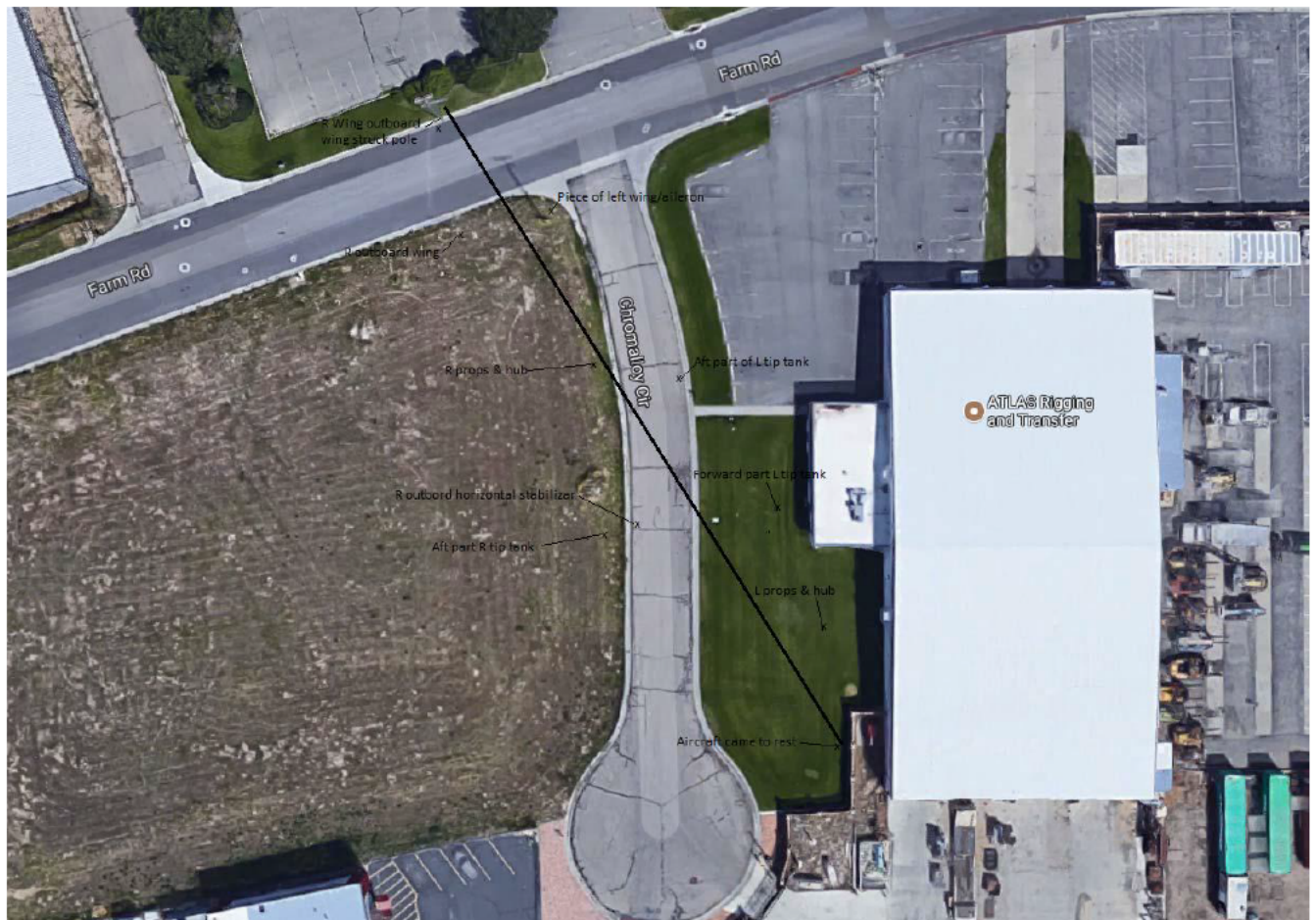
Air Safety Investigations Aircraft Incident/Accident Technical Report

Aircraft Incident/ Accident Information	Year: 1964	Make: Cessna	Model: 310I
	Serial number: 310I0170		Registration: N8170M
Location: Salt Lake City, UT		Date: 08-24-17	Time: 1400 MDT
Aircraft Owner		Aircraft Operator	
Videre Aviation, LLC [REDACTED] [REDACTED]		Same as Aircraft Owner	
Report Information			
Senior Air Safety Investigator: Henry J. Soderlund		Report #: ASI-17-CL-T	Report date: 01-19-18

Airframe

Impact Sequence and Airframe Structure

As the aircraft lost speed after takeoff it descended into an industrial area. During the descent, it hit two power poles just outboard of each engine nacelle. The aircraft then contacted the ground and slid across an empty lot before coming to rest against a cement wall. During the slide, portions of the fuel tanks opened and a small fire consumed the grass on the empty lot.



FAA wreckage diagram

Airframe Systems

Flight Control System Information		
Control lock: Undetermined		
Flight Control Cable Continuity		
Ailerons: Established	Elevators: Established	Rudder: Established
Aileron tab: Established	Elevator tab: Established	Rudder tab: Established
Flap and Trim Positions		
Flap indicator: Off scale	Flap handle: Neutral	Flap actuator: Retracted
Elevator trim:	Indicator: Takeoff range	Actuator: 1.1 inch - 15° tab down
Rudder trim:	Indicator: Neutral	Actuator: 1.2 inch - out of normal range
Aileron trim:	Indicator: Neutral	Actuator: 1.3 inch - out of normal range

Remarks:

The elevator trim tab rod connection hardware was not in compliance with, AD 2016-17-08, Elevator Tab Control System.

Airframe Fuel System Condition, Controls, and Read Outs					
Fuel strainer screen:		Left: Clean		Right: Clean	
Fuel strainer bowl:		Left: Clean		Right: Clean	
Main fuel tank gauge:		Left: Empty		Right: Empty	
Auxiliary fuel gauge:		Left: Empty		Right: Empty	
Locker fuel gauge:		Left: Not applicable		Right: Not applicable	
Locker transfer:		Left: Not applicable		Right: Not applicable	
Fuel selector handle:	Left: Left	Fuel selector valve:	Left: Left	Fuel boost pump:	Left: On
	Right: See below		Right: Off		Right: On
Crossfeed shutoff: Not applicable					

Remarks:

The right fuel selector handle was between RIGHT and OFF. The fuel selector valve positions were confirmed using shop air. MEB88-3 had not been complied with.

The left engine fuel pressure switch assembly on the engine was found to be in an always pressurized position (i.e. always sensing fuel pressure even with engine off).



Cropped version of photograph "Wreckage Exam ASI-17-CL-054.jpg" showing unmodified fuel pump switches.

Landing Gear System Condition and Controls			
Gear position:	Nose: Retracted	Left: Retracted	Right: Retracted
Actuator position:	Nose: Retracted	Left: Retracted	Right: Retracted
Landing gear selector:	Retracted		Aux gear control: Stowed
Environmental System Controls and Read Outs			
Cabin heater:	Undetermined	Cabin vent:	Off
Air conditioner:	Not applicable	Oxygen system:	Not applicable
		Oxygen quantity:	Not applicable
Icing System Information and Switches			
Certified into known icing?	No		De-ice boots installed?
Pitot heat:	Off		Stall heat:
	Not applicable		
De-ice:	Surface: Not applicable	Propeller: Not applicable	Windshield: Not applicable
Anti-ice:	Surface: Not applicable	Propeller: Not applicable	Windshield: Not applicable
ELT Information			
Installed?	Yes	Manufacturer: DM	Model: ELT 6
		Type: (AF)	
Serial number:	7367	Battery due date:	11-19
		Armed:	No
		Activated:	No

Remarks:

The ELT antenna was found disconnected from the unit.

Cabin and Equipment/Furnishings

Restraint System Information						
Seat	Occupied	Restraint type	Restraint used	Condition	Manufacturer	
1	Yes	2-Point	Yes	Intact	Undetermined	
2	No	2-Point	N/A	Latched	Undetermined	

Seat Condition Information					
Seat	Orientation	Feet intact	Back intact	Base intact	Rail intact
1	Forward facing	Yes	Yes	Yes	Yes
2	Forward facing	Yes	Yes	Yes	Yes

Remarks:

None.

Instrument Panel

Navigation Instruments							
Analog primary instruments				Autopilot type: Undetermined			
Suction gage: 0		Magnetic compass: Undetermined			Clock: 1121		
	Left side				Left side		
Airspeed:	0		Turn coordinator (airplane):	Center			
Attitude (pitch):	Level		Turn coordinator (ball):	Center			
Attitude (roll):	Left 60°		Heading indicator:	050			
Altimeter:	24820		Heading "bug":	125			
Altimeter setting:	30.16		Vertical speed indicator:	-50 FPM			
Communication and Navigation Radios							
Radio	Control	Active frequency	Stand-by frequency	Radio	Control	Active frequency	Stand-by frequency
Com 1:	On	112.7	N/A	Com 2:	On	124.30	N/A
Nav 1:	On	116.9	N/A	Nav 2:	On	116.9	N/A
Obs 1:	178			Obs 2:	020		
Transponder:	Mode: Digital		Active code: Digital		Stand-by code: Digital		
Electrical Switch Positions							
Master battery: On							
Left generator: On				Right generator: On			
Avionics 1: Undetermined							
Lighting Switch Positions							
Navigation: On		Rotating beacon: On			Landing: Off		
Taxi: On		Strobe: Not applicable			Instrument: Undetermined		
Wing Ice: Not applicable							
Ignition Switch Positions							
Left engine:	Left magneto: On			Right magneto: On			
Right engine:	Left magneto: On			Right magneto: On			

Remarks:

None.

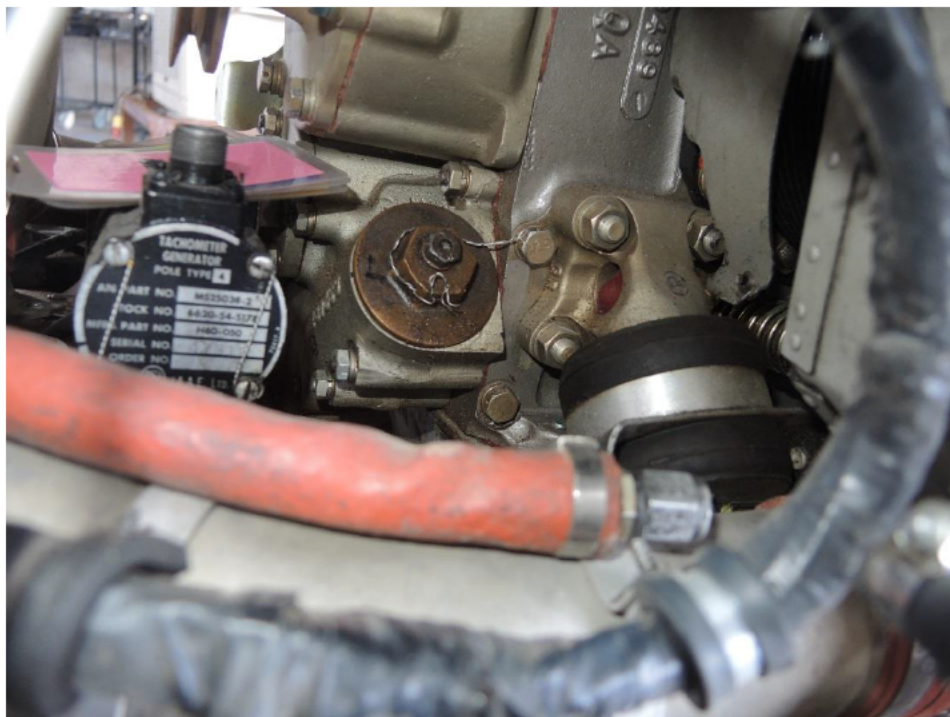
Powerplant Description

Engine Instruments					
Hour meter: 4,819.6					
	Left engine	Right engine		Left engine	Right engine
Tach RPM:	0	0	CHT:	0	0
Manifold press:	28.5	28.5	Fuel press:	Not applicable	Not applicable
Oil press:	0	0	Fuel flow:	Off scale	Off scale
Oil temp:	0	0	Ammeter:	0	0
EGT:	0	Not switch on	Voltmeter:	Not applicable	Not applicable
Left Engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	Full forward	Undetermined	Cowl flaps:	Not applicable	Not applicable
Mixture:	Full forward	Undetermined	Alt air:	Off	Undetermined
Propeller:	Feathered	Undetermined	Primer:	Not applicable	
Right Engine Control Positions					
	Cockpit	Engine		Cockpit	Engine
Throttle:	Full forward	Undetermined	Cowl flaps:	Not applicable	Not applicable
Mixture:	Full forward	Undetermined	Alt air:	Off	See below
Propeller:	Full forward	Undetermined	Primer:	Not applicable	
Engine Condition					
	Left engine		Right engine		
Engine attached to airframe:	Yes		Yes		
Propeller attached to engine:	No		No		
Engine compression:	Yes		Yes		
Vacuum pump drive shaft:	Intact		Intact		
Valve train continuity:	Yes		Yes		
Engine Fuel System Condition					
	Left engine		Right engine		
Fuel pump drive shaft:	Intact		Intact		
Fuel injectors:	Undetermined		Undetermined		
Fuel control inlet screen:	Debris found		Clean		
Distribution valve screen:	Clean		Clean		

Engine Magneto Condition						
	Left engine			Right engine		
Left magneto attached:	Yes			Yes		
Left magneto spark:	See below			See below		
Right magneto attached:	Yes			Yes		
Right magneto spark:	See below			See below		
Left Engine Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	See below	See below	See below	See below	See below	See below
Bottom	Not examined	Not examined	Not examined	Not examined	Not examined	Not examined
Right Engine Spark Plug Condition (per Champion Check-A-Plug Card)						
	1	2	3	4	5	6
Top	See below	See below	See below	See below	See below	Normal
Bottom	Not examined	Not examined	Not examined	Not examined	Not examined	Not examined

Remarks:

The left engine top spark plugs appeared dark in color and sooty. The top leads on each magneto produced spark. The right alternate air door connection on the engine was worn away. The left engine tachometer cannon plug was found loose.



Wreckage Exam ASI-17-CL-124.jpg – showing disconnected left tachometer generator.

Propellers

The left propeller appeared mostly undamaged. The right propeller had one blade that was separated into two pieces. The portion of the blade that remained attached to the hub could be rotated by hand.

Research & Testing

None.