

**NATIONAL TRANSPORTATION SAFETY BOARD
PILOT/OPERATOR AIRCRAFT ACCIDENT/INCIDENT REPORT**

This form to be used for reporting civil and public use aircraft accidents and incidents

BASIC INFORMATION

Accident/Incident Location

Nearest City/Place: Livermore State: CA
 ZIP: 94551 Country: USA
 Latitude: _____ (dd:mm:ss N/S) Longitude: _____ (ddd:mm:ss E/W)

Date/Time

Date: 10/20/2013 Local Time: 1400
mm/dd/yyyy Time Zone: Pacific

Phase of Operation

Standing Takeoff (incl. initial climb) Cruise Hover
 Taxi Climb Maneuvering Other
 Descent Landing Approach Unknown

Collision with Other Aircraft

Midair
 On-ground
 None

Altitude of In-Flight Occurrence

_____ ft MSL

AIRCRAFT INFORMATION

Manufacturer: Aviat
 Model: Pitts S-2C
 Serial Number: 6045
 Registration Number: N15TA Amateur-built: Yes No

Max Gross Weight: 1,700 lbs
 Weight at Time of Accident/Incident: 1,666 lbs
 Location of Center of Gravity at Time of Accident/Incident:
90.0 inches from nose or datum
 -or- _____ Percent Mean Aerodynamic Cord (% MAC)

Category of Aircraft

Airplane
 Balloon
 Blimp/Dirigible
 Glider
 Gyrocraft
 Helicopter
 Powered lift
 Ultralight
 Unknown

Type of Airworthiness Certificate
(Check all that apply)

Standard **Special**
 Normal Restricted
 Utility Limited
 Acrobatic Provisional
 Transport Experimental
 Special Flight
 Light Sport

Number of Seats: 2

If Large Aircraft, how many seats for:

Flight Crew: _____

Cabin Crew: _____

Passengers: _____

Landing Gear Retractable

Check any additional landing gear configuration that applies:

Tricycle Tailwheel
 Amphibian High Skid
 Emergency Float Skid
 Float Ski
 Hull Ski/Wheel
 Unknown

Type of Maintenance Program

Annual
 Conditional (Amateur-built only)
 Manufacturer's Inspection Program
 Other Approved Inspection Program (AAIP)
 Continuous Airworthiness
 Other, specify: 100 hr

Last Inspection Type

100 Hour Continuous Airworthiness
 AAIP Conditional Inspection
 Annual Unknown

Date Last Inspection: 05/02/2013
mm/dd/yyyy

Airframe Total Time: 2,153 hrs

hours measured at *(check one)*

Last Inspection Time of Accident/Incident

IFR Equipped

Yes No Unknown

Stall Warning System Installed

Yes No Unknown

Type of Fire Extinguishing System

None
 Specify _____

ELT Installed

Yes No

ELT Activated

Yes No

ELT Manufacturer: Emergency Beacon Corp.

Model/Series: EBC-502

ELT Aided in Locating Accident/Incident

Yes No

Serial Number: _____

Battery Type: GS-52

Battery Exp. Date: 09/2014

Engine Type

Reciprocating Turbo Jet
 Turbo Shaft Turbo Fan
 Turbo Prop Unknown

Reciprocating Fuel System Type

Carburetor
 Fuel Injected

Propeller

Fixed Pitch
 Controllable Pitch

Manufacturer: Hartzell

Model: HC-C3YR-1A/7690E

Engine	Engine Manufacturer	Engine Model/Series	Manufacturer's Serial Number	Date of Mfg. <i>mm/dd/yyyy</i>	Engine Rated Power Measured as <i>(check one)</i> <input checked="" type="checkbox"/> Horsepower or <input type="checkbox"/> lbs of Thrust	Total Time (hours)	Time Since Inspection (hours)	Time Since Overhaul (hours)
Eng. 1	Lycoming	AEIO-540	L-27432-48A	03/24/2000	260	2,153	85	636
Eng. 2								
Eng. 3								
Eng. 4								

OWNER/OPERATOR INFORMATION

Registered Aircraft Owner Name: <u>Attitude Aviation, Inc.</u> Fractional Ownership Aircraft: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Owner Address City: <u>Livermore</u> State: <u>CA</u> ZIP: <u>94551</u> Country: <u>USA</u>
Operator of Aircraft <input checked="" type="checkbox"/> Same As Registered Owner Name: _____ Doing Business As: _____ Air Carrier/Operator Designator (4 Character Code): _____	Operator Address <input checked="" type="checkbox"/> Same As Registered Owner City: _____ State: _____ ZIP: _____ Country: _____

Regulation Flight Conducted Under <input checked="" type="checkbox"/> FAR 91 <input type="checkbox"/> FAR 129 <input type="checkbox"/> FAR 91 Special Flight <input type="checkbox"/> Public Use (select type) <input type="checkbox"/> FAR 103 <input type="checkbox"/> FAR 133 <input type="checkbox"/> Non-US, Commercial <input type="checkbox"/> Federal <input type="checkbox"/> State <input type="checkbox"/> Local <input type="checkbox"/> FAR 121 <input type="checkbox"/> FAR 135 <input type="checkbox"/> Non-US, Non-commercial <input type="checkbox"/> Unknown <input type="checkbox"/> FAR 125 <input type="checkbox"/> FAR 137 <input type="checkbox"/> Armed Forces	Revenue Sightseeing Flight <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Air Medical Flight <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Purpose of Flight for FAR 91, 103, 133, 137 (Select one) <input checked="" type="checkbox"/> Personal <input type="checkbox"/> Business <input type="checkbox"/> Executive/Corporate <input type="checkbox"/> Other Work Use <input type="checkbox"/> Instructional <input type="checkbox"/> Ferry <input type="checkbox"/> Positioning <input type="checkbox"/> Aerial Application <input type="checkbox"/> Aerial Observation <input type="checkbox"/> Air Drop <input type="checkbox"/> Air Race / Show <input type="checkbox"/> Flight Test <input type="checkbox"/> Public Use <input type="checkbox"/> Unknown	Revenue Operation for FAR 121, 125, 129, 135 (Select one) <input type="checkbox"/> Scheduled or Commuter <input type="checkbox"/> Non-Scheduled or Air Taxi Domestic or International <input type="checkbox"/> Domestic <input type="checkbox"/> International Cargo Operation <input type="checkbox"/> Passenger/Cargo <input type="checkbox"/> Passenger _____ How many? <input type="checkbox"/> Cargo _____ lbs <input type="checkbox"/> Mail	Type of Commercial Operating Certificate Held (Check all that apply) <input type="checkbox"/> None <input type="checkbox"/> Flag Carrier Operating Certificate (121) <input type="checkbox"/> Supplemental <input type="checkbox"/> Air Cargo <input type="checkbox"/> Foreign Air Carriers (129) <input type="checkbox"/> Commuter Air Carrier (135) <input type="checkbox"/> On-Demand Air Taxi (135) <input type="checkbox"/> Large Helicopter (127) <input type="checkbox"/> Rotorcraft External Load (133) - or - <input type="checkbox"/> Agricultural Aircraft (137) <input type="checkbox"/> Other Operator of Large Aircraft
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OTHER AIRCRAFT - COLLISION (If air or ground collision occurred, complete this section for other aircraft)

Aircraft Registration Number <u>N698SP</u>	Manufacturer: <u>Cessna</u> Model: <u>172S</u>	Damage to Other Aircraft <input type="checkbox"/> Destroyed <input type="checkbox"/> Minor <input checked="" type="checkbox"/> Substantial <input type="checkbox"/> None
Registered Owner of Other Aircraft First Name: <u>Blue Granite Consulting</u> City: <u>Sunnyvale</u> Middle Initial: _____ State: <u>CA</u> ZIP: <u>94087</u> Last Name: _____ Country: <u>USA</u>		
Pilot of Other Aircraft First Name: <u>Mathew</u> City: <u>San Carlos</u> Middle Initial: _____ State: <u>CA</u> ZIP: <u>94070</u> Last Name: <u>Debskl</u> Country: <u>USA</u>		

MECHANICAL MALFUNCTION/FAILURE (If more space is needed, continue on separate sheet)

Was there Mechanical Malfunction/Failure? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Unknown (If yes, list the name of the part, manufacturer, part no., serial no., and describe the failure.) 	Total Time/Cycles On Part _____ Hours _____ Cycles Time Since This Part Inspected/Overhauled _____ Hours
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DAMAGE TO AIRCRAFT AND OTHER PROPERTY

Aircraft Damage <input checked="" type="checkbox"/> None <input type="checkbox"/> Substantial <input type="checkbox"/> Minor <input type="checkbox"/> Destroyed	Aircraft Fire <input checked="" type="checkbox"/> None <input type="checkbox"/> Both Ground and In-Flight <input type="checkbox"/> In-Flight <input type="checkbox"/> Unknown Origin <input type="checkbox"/> On-Ground	Aircraft Explosion <input checked="" type="checkbox"/> None <input type="checkbox"/> Both Ground and In-Flight <input type="checkbox"/> In-Flight <input type="checkbox"/> Unknown Origin <input type="checkbox"/> On-Ground
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Description of Damage to Aircraft and Other Property (use additional sheet if necessary)

Pitts N15TA: Damage limited to propeller blades (scratches). Engine & prop have been sent to outside vendors for teardown and repair as necessary.

Cessna N698SP: Damage limited to Left Elevator, Rudder and Vertical Stabilizer.

See photos.

AIRPORT INFORMATION (If the accident/incident occurred on approach, takeoff or within 3 miles of an airport, complete this section)

Airport Identifier: _____ Distance From Airport Center: _____ SM
Airport Name: _____ Direction From Airport: _____ degrees MAG
Proximity to Airport Off Airport/Airstrip On Airport On Airstrip Airport Elevation: _____ ft. MSL

Approach Segment (Select one)

On Instrument Approach Landing Base leg Final Go Around
 Crosswind Downwind Low Approach Aborted Landing (after touchdown)

IFR Approach (Check all that apply)

None PAR MLS Practice
 ADF/NDB Sidestep LDA GPS
 SDF ILS ASR Loran
 VOR/TVOR Localizer Only Visual Unknown
 VOR/DME LOC-back course Contact
 TACAN RNAV Circling

VFR Approach (Check all that apply)

None Stop and Go
 Traffic Pattern Touch and Go
 Straight-In Simulated Forced Landing
 Valley/Terrain Following Forced Landing
 Go Around Precautionary Landing
 Full Stop Unknown

Runway Information

Runway ID: _____ (L/R/C) Length: _____ ft Width: _____ ft

Runway/Landing Surface (Check all that apply)

Asphalt Grass/Turf Macadam Water
 Concrete Gravel Metal/Wood Unknown
 Dirt Ice Snow

Condition of Runway/Landing Surface (Check all that apply)

Dry Snow-Compacted Water-Calm
 Holes Snow-Crusted Water-Choppy
 Ice Covered Snow-Dry Water-Glassy
 Rough Snow-Wet Wet
 Rubber Deposits Soft Unknown
 Slush Covered Vegetation

FLIGHT ITINERARY INFORMATION

Last Departure Point

Airport ID: KLVK
City: Livermore
State: CA
Country: USA

Time of Departure

Time: 1300
Time Zone: Pacific

Destination

Airport ID: KLVK
City: Livermore
State: CA
Country: USA

Type Flight Plan Filed

None VFR/IFR
 Company VFR IFR
 Military VFR Unknown
 VFR
Activated? Yes No

Type of ATC Clearance/Service (Check all that apply)

None Special VFR Special IFR VFR Flight Following Cruise
 VFR IFR VFR On Top Traffic Advisory Unknown / NA

Airspace where the accident/incident occurred (Check all that apply)

Class A Class E Prohibited Area Jet Training Area Special
 Class B Class G Restricted Area TRSA Air Traffic Control Area
 Class C Demo Area Military Operations Area (MOA) FAR 93 Unknown
 Class D Warning Area Airport Advisory Area

Aircraft Load Description (Check all that apply)

None Towing Glider Parachutists Livestock
 Passengers Towing Banner Water Unknown
 Cargo Other External Chemical/Fertilizer/Seeds

FUEL & SERVICES INFORMATION

Fuel on Board at Last Takeoff

(convert from pounds, as necessary)
_____ 23 Gallons

Fuel Type

80/87 115/145 JP3 Other, specify _____
 100 Low Lead Jet A JP4
 100/130 Automotive JP5

Other Services, if Any, Prior to Departure

EVACUATION OF AIRCRAFT

Was an emergency evacuation of the aircraft performed? Yes No

Method of Exit - Describe how the occupants exited and how many occupants evacuated each location

WEATHER INFORMATION AT THE ACCIDENT/INCIDENT SITE

Weather Observation Facility Facility ID: <u>KLVK</u> Observation Time: <u>1400</u> Time Zone: <u>Pacific</u> Distance from Accident Site: <u>0</u> NM Direction from Accident Site: <u>250</u> degrees MAG	Source of Weather Information (Check all that apply) <input type="checkbox"/> National Weather Service <input type="checkbox"/> Flight Service Station <input type="checkbox"/> TV/Radio <input checked="" type="checkbox"/> Automated Report <input type="checkbox"/> Commercial Weather Service (DUATS) <input type="checkbox"/> Company <input type="checkbox"/> Military <input type="checkbox"/> Internet <input type="checkbox"/> Unknown	Method of Briefing (Check all that apply) <input type="checkbox"/> In Person <input type="checkbox"/> Teletype <input type="checkbox"/> Telephone/Computer <input checked="" type="checkbox"/> Aircraft Radio <input type="checkbox"/> TV/Radio <input type="checkbox"/> Unknown
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Briefing Type/Completeness <input type="checkbox"/> Full <input type="checkbox"/> Partial / Limited By Pilot <input type="checkbox"/> Partial / Limited By Briefer <input type="checkbox"/> Abbreviated <input type="checkbox"/> Unknown <input type="checkbox"/> Not Pertinent	Light Condition <input type="checkbox"/> Dawn <input checked="" type="checkbox"/> Day <input type="checkbox"/> Dusk <input type="checkbox"/> Night <input type="checkbox"/> Dark Night <input type="checkbox"/> Bright Night <input type="checkbox"/> Not Reported	Visibility <u>20</u> miles
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Sky/Lowest Cloud Condition <input checked="" type="checkbox"/> Clear <input type="checkbox"/> Few <input type="checkbox"/> Partial Obscuration <input type="checkbox"/> Scattered <input type="checkbox"/> Thin Broken <input type="checkbox"/> Thin Overcast <input type="checkbox"/> Unknown	Ceiling <input checked="" type="checkbox"/> None (clear) <input type="checkbox"/> Broken <input type="checkbox"/> Overcast <input type="checkbox"/> Obscured <input type="checkbox"/> Indefinite <input type="checkbox"/> Unknown	Restriction to Visibility (Check all that apply) <input checked="" type="checkbox"/> None <input type="checkbox"/> Blowing Dust <input type="checkbox"/> Blowing Sand <input type="checkbox"/> Blowing Snow <input type="checkbox"/> Blowing Spray <input type="checkbox"/> Dust <input type="checkbox"/> Fog <input type="checkbox"/> Ground Fog <input type="checkbox"/> Haze <input type="checkbox"/> Ice Fog <input type="checkbox"/> Smoke <input type="checkbox"/> Unknown
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Lowest Cloud Condition Height _____ ft AGL	Ceiling Height _____ ft AGL		
Wind Direction <input type="checkbox"/> Indicated: _____ degrees MAG <input checked="" type="checkbox"/> Variable	Wind Speed Velocity: _____ KTS -or- <input type="checkbox"/> Calm <input checked="" type="checkbox"/> Light and Variable	Wind Gusts Velocity: _____ KTS <input type="checkbox"/> Gusting <input type="checkbox"/> Not Gusting	Type of Turbulence (Check all that apply) <input checked="" type="checkbox"/> None <input type="checkbox"/> Clear Air <input type="checkbox"/> In Clouds <input type="checkbox"/> Vicinity of Thunderstorm Severity of Turbulence <input type="checkbox"/> Extreme <input type="checkbox"/> Severe <input type="checkbox"/> Moderate <input type="checkbox"/> Moderate Chop <input type="checkbox"/> Light

NOTAMs (D, L and FDC), AIRMETS, SIGMETs, PIREPs in effect at the time of the accident/incident

Temperature: _____ (C) or _____ 75 (F) Altimeter Setting: _____ in. HG or _____ MB Density Altitude: _____ ft Dew Point: _____ (C) or _____ (F)	Icing Forecast Amount <input checked="" type="checkbox"/> None <input type="checkbox"/> Trace <input type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Type <input type="checkbox"/> Rime <input type="checkbox"/> Clear <input type="checkbox"/> Mixed	Type of Precipitation (Check all that apply) <input checked="" type="checkbox"/> None <input type="checkbox"/> Rain <input type="checkbox"/> Snow <input type="checkbox"/> Hail <input type="checkbox"/> Rain Showers <input type="checkbox"/> Freezing Rain <input type="checkbox"/> Snow Shower <input type="checkbox"/> Drizzle <input type="checkbox"/> Ice Pellets <input type="checkbox"/> Snow Pellets <input type="checkbox"/> Snow Grains <input type="checkbox"/> Ice Crystals <input type="checkbox"/> Ice Pellets Shower <input type="checkbox"/> Freezing Drizzle
	Icing Actual Amount <input checked="" type="checkbox"/> None <input type="checkbox"/> Trace <input type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Severe Type <input type="checkbox"/> Rime <input type="checkbox"/> Clear <input type="checkbox"/> Mixed	Intensity of Precipitation <input type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy

PILOT "B" INFORMATION

Pilot "B" Responsibilities at the Time of Accident/Incident
 Pilot Co-Pilot Student Pilot Flight Instructor Check Pilot Flight Engineer Other Flight Crew

Pilot "B" Identification
 First Name: _____ City: _____
 Middle Initial: _____ State: _____ ZIP: _____
 Last Name: _____ Country: _____
 Age at time of Accident/Incident: _____ Date of Birth: _____ Certificate Number: _____
mm/dd/yyyy

Degree of Injury <input type="checkbox"/> None <input type="checkbox"/> Fatal <input type="checkbox"/> Minor <input type="checkbox"/> Unknown <input type="checkbox"/> Serious	Seat Occupied <input type="checkbox"/> Left <input type="checkbox"/> Front <input type="checkbox"/> Unknown <input type="checkbox"/> Right <input type="checkbox"/> Rear <input type="checkbox"/> Center <input type="checkbox"/> Single	Seat Belt Used <input type="checkbox"/> Yes <input type="checkbox"/> No Available <input type="checkbox"/> Yes <input type="checkbox"/> No	Shoulder Harness Used <input type="checkbox"/> Yes <input type="checkbox"/> No Available <input type="checkbox"/> Yes <input type="checkbox"/> No
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Pilot Certificate(s) *(Check all that apply)*
 None Student Recreational Commercial Flight Engineer Foreign
 Private Flight Instructor Sport Airline Transport U.S. Military

Principal Occupation <input type="checkbox"/> Pilot <input type="checkbox"/> Other <input type="checkbox"/> Unknown	Medical Certificate <input type="checkbox"/> None <input type="checkbox"/> Class 3 <input type="checkbox"/> Class 1 <input type="checkbox"/> Driver's License (Sport Pilot only) <input type="checkbox"/> Class 2 <input type="checkbox"/> Unknown	Medical Certificate Validity <input type="checkbox"/> Without limitations/waivers <input type="checkbox"/> With limitations/waivers <input type="checkbox"/> Unknown	Date of Last Medical _____ <i>mm/dd/yyyy</i>
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Medical Certificate Limitations

Medical Certificate Waivers

Date of Last Flight Review or Equivalent, Including FAR 121/135 Checks: _____ <i>mm/dd/yyyy</i>	Flight Review Aircraft Make: _____ Model: _____
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Airplane Rating(s) <i>(Check all that apply)</i> <input type="checkbox"/> None <input type="checkbox"/> Single-Engine Land <input type="checkbox"/> Single-Engine Sea <input type="checkbox"/> Multiengine Land <input type="checkbox"/> Multiengine Sea	Other Aircraft Rating(s) <i>(Check all that apply)</i> <input type="checkbox"/> None <input type="checkbox"/> Airship <input type="checkbox"/> Free Balloon <input type="checkbox"/> Glider <input type="checkbox"/> Gyroplane <input type="checkbox"/> Helicopter <input type="checkbox"/> Powered Lift	Instrument Rating(s) <i>(Check all that apply)</i> <input type="checkbox"/> None <input type="checkbox"/> Airplane <input type="checkbox"/> Helicopter <input type="checkbox"/> Powered Lift	Instructor Rating(s) <i>(Check all that apply)</i> <input type="checkbox"/> None <input type="checkbox"/> Airplane Single-Engine <input type="checkbox"/> Airplane Multi-Engine <input type="checkbox"/> Gyroplane <input type="checkbox"/> Powered Lift <input type="checkbox"/> Instrument Airplane <input type="checkbox"/> Instrument Helicopter <input type="checkbox"/> Helicopter <input type="checkbox"/> Glider <input type="checkbox"/> Sport
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Type Ratings	Student Endorsements <i>(Include dates)</i>
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Flight Time <i>(enter appropriate number of hours in each box)</i>	All Aircraft	This Make & Model	Airplane Single Engine	Airplane Multieengine	Night	Instrument		Rotorcraft	Glider	Lighter Than Air
						Actual	Simulated			
Total Time										
Pilot in Command (PIC)										
Time as Instructor										
This Make/Model										
Last 90 Days										
Last 30 Days										
Last 24 Hours										

ADDITIONAL FLIGHT CREW MEMBERS (Exclusive of cabin attendants, complete the following information)

Pilot Name and Address		Degree of Injury	
First Name: <u>James</u>	City: <u>Livermore</u>	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Fatal
Middle Initial: <u>R</u>	State: <u>CA</u> ZIP: <u>94551</u>	<input type="checkbox"/> Minor	<input type="checkbox"/> Unknown
Last Name: <u>Perkins</u>	Country: <u>USA</u>	<input type="checkbox"/> Serious	
Pilot Certificate(s) (Check all that apply)		Seat Occupied	
<input type="checkbox"/> None	<input type="checkbox"/> Student	<input type="checkbox"/> Recreational	<input type="checkbox"/> Commercial
<input type="checkbox"/> Private	<input checked="" type="checkbox"/> Flight Instructor	<input type="checkbox"/> Sport	<input checked="" type="checkbox"/> Airline Transport
		<input type="checkbox"/> Flight Engineer	<input type="checkbox"/> Foreign
		<input type="checkbox"/> U.S. Military	
Type Rating/Endorsement for Accident/Incident Aircraft?		Total Flight Time at the Time of this Accident/Incident: <u>9,800</u> hrs	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

Pilot Name and Address		Degree of Injury	
First Name: <u>Arnold</u>	City: <u>Belmont</u>	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Fatal
Middle Initial: _____	State: <u>CA</u> ZIP: <u>94002</u>	<input type="checkbox"/> Minor	<input type="checkbox"/> Unknown
Last Name: <u>Moston</u>	Country: <u>USA</u>	<input type="checkbox"/> Serious	
Pilot Certificate(s) (Check all that apply)		Seat Occupied	
<input type="checkbox"/> None	<input type="checkbox"/> Student	<input type="checkbox"/> Recreational	<input type="checkbox"/> Commercial
<input checked="" type="checkbox"/> Private	<input type="checkbox"/> Flight Instructor	<input type="checkbox"/> Sport	<input type="checkbox"/> Airline Transport
		<input type="checkbox"/> Flight Engineer	<input type="checkbox"/> Foreign
		<input type="checkbox"/> U.S. Military	
Type Rating/Endorsement for Accident/Incident Aircraft?		Total Flight Time at the Time of this Accident/Incident: <u>700</u> hrs	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

Pilot Name and Address		Degree of Injury	
First Name: _____	City: _____	<input type="checkbox"/> None	<input type="checkbox"/> Fatal
Middle Initial: _____	State: _____ ZIP: _____	<input type="checkbox"/> Minor	<input type="checkbox"/> Unknown
Last Name: _____	Country: _____	<input type="checkbox"/> Serious	
Pilot Certificate(s) (Check all that apply)		Seat Occupied	
<input type="checkbox"/> None	<input type="checkbox"/> Student	<input type="checkbox"/> Recreational	<input type="checkbox"/> Commercial
<input type="checkbox"/> Private	<input type="checkbox"/> Flight Instructor	<input type="checkbox"/> Sport	<input type="checkbox"/> Airline Transport
		<input type="checkbox"/> Flight Engineer	<input type="checkbox"/> Foreign
		<input type="checkbox"/> U.S. Military	
Type Rating/Endorsement for Accident/Incident Aircraft?		Total Flight Time at the Time of this Accident/Incident: _____ hrs	
<input type="checkbox"/> Yes <input type="checkbox"/> No			

PASSENGER(S) / OTHER PERSONNEL (Include flight attendants; continue on separate sheet if necessary)

Name and Address	Seat	Crew	Non-Revenue	Revenue	Non-Occupant	FAA	Fatal	Serious Injury	Minor Injury	No Injury	Unknown
First Name: _____ City: _____											
Middle Initial: _____ State: _____ ZIP: _____											
Last Name: _____ Country: _____											
First Name: _____ City: _____											
Middle Initial: _____ State: _____ ZIP: _____											
Last Name: _____ Country: _____											
First Name: _____ City: _____											
Middle Initial: _____ State: _____ ZIP: _____											
Last Name: _____ Country: _____											
First Name: _____ City: _____											
Middle Initial: _____ State: _____ ZIP: _____											
Last Name: _____ Country: _____											
First Name: _____ City: _____											
Middle Initial: _____ State: _____ ZIP: _____											
Last Name: _____ Country: _____											

NARRATIVE HISTORY OF FLIGHT (Please type or print in ink)

Describe what occurred in chronological order, including circumstances leading to and nature of accident/incident. Describe terrain and include wreckage distribution sketch if pertinent. Attach extra sheets if needed. State time and point of departure, intended destination, and services obtained.

See Attached Narratives

RECOMMENDATION (How could this accident/incident have been prevented?)**Operator/Owner Safety Recommendation**

1. Only Ground Control should be controlling airport ground traffic. In this case, Tower retained control of an aircraft on the ground between two runways, and subsequently cleared that aircraft to taxi across a runway when there was an aircraft on the other side blocking the taxiway. There was insufficient clearance for the taxiing aircraft to clear the runway without striking the other aircraft. Only Ground Control, who should have clear situational awareness of all ground traffic, should be controlling ground traffic. For the record, this procedure--Tower retaining control of aircraft between runways--has been the standard procedure at Livermore Airport for at least the 10 years I've been flying here. This should change.
2. Ground Control and Tower Control must coordinate traffic with each other to ensure there are no conflicts.
3. ATC Controllers should be educated with respect to the visibility limitations experienced by pilots of aircraft with conventional (tailwheel) landing gear configurations. The pilot of a tailwheel aircraft often cannot see directly ahead of the aircraft and must do S-turns to see around the nose of the aircraft. Sometimes, as was the case here, nearness of the runway edge (or narrow taxiways, or parked aircraft, etc.) restrict these turns and further reduce the pilot's ability to see ahead. A video, or taxi time, or flight in a tailwheel aircraft might give the controllers better insight and appreciation for the visibility limitations faced by pilots of tailwheel aircraft.

ADDITIONAL INFORMATION *(Please type or print in ink)*

Use this space if additional space is needed for any answers.

I HEREBY CERTIFY THAT THE ABOVE INFORMATION IS COMPLETE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Date of this Report 11/13/2013 <i>mm/dd/yyyy</i>	Signature and Name of Pilot/Operator Signature: _____ Type or Print Name: <u>Arnold Moston</u>
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Signature and Name of Person Filing Report if Other than Pilot/Operator
Signature: _____
Type or Print Name: _____
Title: _____

FOR NTSB USE ONLY

NTSB Accident/Incident No. WPR14LA025AB	Reviewed by NTSB Regional Office WPR	Name of Investigator Michael Huhn	Date Report Received 11/14/13
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**NARRATIVE: ARNOLD MOSTON
PITTS N15TA TAXI ACCIDENT 20 OCT 2013**

The morning of Sunday 10/20/13 was stress free. Woke up, felt good, had a cup of coffee, read the Sunday paper and headed out to LVK. The peninsula was overcast but the valley was clear and calm. I've accumulated over 60 hours in the Pitts and felt like I reached a point with my acrobatic skills that I wanted to learn more of what the Pitts was capable of. I hired Rich Perkins, flight instructor and owner of Attitude Aviation, to spend an hour in the air with me. We had a pre-flight discussion going over a few mechanical questions I had about the Pitts. We discussed the type of acrobatic maneuvers I typically fly. We discussed verbal and hand signals used to convey who had control of the airplane, and emergency procedures in general.

I went through the pre-flight procedure and everything checked out normal. We both strapped in. I went through the start up checklist and fired up. I received ATIS switched to ground and obtained clearance to 25R. The run up was normal with no anomalies. I called tower on 118.1 requested a 25R right hand departure and was instructed to hold short of 25R. I read back the instruction and held. We were cleared for takeoff and departed to the east. We flew to the practice area NE of Discovery Bay to practice. We went through a series of acrobatics and returned to LVK with adequate fuel reserve. After receiving ATIS I reported 1/2 mile north of Brushy Peak with Hotel. I was expecting to enter on a 2 mile base but instead was told to enter on a 4 mile final and to follow a Cirrus on a 1 mile final. I was approximately 2 miles out when I was cleared to land on 25R. My approach was a bit hot and landed long. The touch down was normal. As we rolled out the tower instructed me to turn left on Golf and hold short of 25L and remain on tower frequency. I read back the towers instruction, exited 25R on Golf and held for clearance to cross 25L. As we held short we watched an RV land on 25L and exit the active approximately 600' to our east. At the time I was thinking the RV was our traffic. After the RV exited 25L the tower came back and cleared me to cross 25L and then contact ground. Instinctively I looked east for traffic as well as west even though traffic was landing from the east. I looked in front but wasn't looking for an airplane. I then proceeded to cross 25L and drifted slightly to the right. My eyes were looking forward and down at the right side edge of pavement while I made a slight correction steering to left. Since I was taxiing relatively straight the nose of my airplane obstructed the view directly ahead of me. As I made a slight correction to the left the taxiway hold short line came into view. I must have been maybe 3/4 of way across the active. I turned my head to the left and was looking down at the hold short line to make sure I cleared the active before contacting ground. As I barely crossed the hold short line just before applying the brakes we came in contact with the vertical stabilizer of the aircraft in front of us. The engine turned a few times and stopped. I shut the plane down and watched the Cessna in front of us with its engine still running. I sat there for a moment stunned. The Cessna made a radio call, and then Rich got on the mike and told tower we had just rear ended a Cessna. After a few seconds went by the tower came back and asked, "15TA have you cleared 25L?" The Cessna never shut down and Ground told him to taxi to parking. We left the Pitts in the location where it was shut down. Rich documented the damage to the Pitts and our relative position to the runway threshold. Personnel from Attitude Aviation came out in a golf cart to assist. After documenting the location of the Pitts upon striking the Cessna Rich and I pushed the Pitts into the run up area. A truck came out and towed the Pitts back to the south hanger. Rich and I met the pilot of the Cessna in Attitude's office. We apologized and discussed the sequence of events, who was on what frequency at what time.

In retrospect I know this accident was totally avoidable in so many ways. I failed to see and be seen. I could never have expected the pilot of the Cessna to see me. He would never have expected to be rear ended especially at a controlled airport just as I would never have expected the same. Upon entering or departing in the air or on the ground I always check for traffic on the runway, taxiways, in the pattern regardless if the airport is controlled or not. I'm not trying to push blame but it never crossed my mind to expect to be cleared such a short distance into another airplane. This accident has had a profound impression on me and has resulted in a definite change to my state of awareness not only when flying but in everything I do.

NARRATIVE: JAMES R. PERKINS

At approximately 1400 PST on 20 Oct 2013, at Livermore Municipal Airport, Pitts N15TA taxied into the rear of Cessna N698SP. The propeller of the Pitts contacted the tail of the Cessna and stopped rotating about a second after contact. Both aircraft continued forward for several feet after contact and stopped. It is unclear whether the Cessna was pushed forward or taxied forward. There were no injuries. Damage to the Cessna was to the left elevator, rudder and vertical stabilizer. Damage to the Pitts appeared to be limited to the tips of the propeller. The Cessna taxied to transient parking under its own power. The Pitts was towed back to the FBO.

I was in the front seat of the Pitts. Arnold Moston occupied the rear seat as Pilot in Command. Arnie had rented the Pitts S-2C many times solo and was fully qualified in the aircraft. I am an experienced aerobatic pilot, and Arnie had asked me to give him an opinion on his current aerobatic skills and perhaps add some maneuvers to his personal aerobatic maneuver list.

There were no physiological or environmental factors which had any significant effect on the events of the day. I was rested and under no undue stress. The planned flight was routine. The weather was VFR, with clear skies, good visibility and light winds.

There were no equipment issues. There is one important aircraft design consideration regarding the Pitts Special S-2C which did contribute to the accident: Due to the fact that the Pitts is a tailwheel aircraft, with a very steep deck angle and wide nose, it is absolutely impossible for either cockpit occupant to see directly ahead of the aircraft during taxi. For this reason, the pilot usually executes S-turns during taxi to clear ahead of the aircraft. At normal taxi speeds, it can take 40'-100' to execute this clearing maneuver, depending on conditions and pilot technique. It should also be noted that the front seat occupant's ability to see around the nose during these clearing turns is much more limited than that of the rear seat occupant, due to the front seat occupant's close proximity to the very wide, very tall aircraft nose.

We took off from Livermore Municipal Airport, practiced some aerobatics northeast of Discovery Bay, CA and returned to Livermore Municipal Airport. Arnie landed long on Runway 25R and turned left at Taxiway Golf, about 4000' down the 5200' runway. Taxiway Golf also crosses the approach end of Runway 25L. Tower instructed us to "Turn left, taxiway Golf, hold short 25 Left." Arnie cleared Runway 25R, stopped short of 25L and completed the after landing checklist.

There was an experimental aircraft (an RV-6, I think) on final for Runway 25L, so it was obvious we were holding short of 25L for landing traffic. We held short of the runway and watched the aircraft land and turn off of Runway 25L on the taxiway *prior* to the taxiway we were holding on.

Immediately after the landing traffic turned off the runway, Livermore Tower cleared us to cross Runway 25L.

Unknown to us, a Cessna 172SP had landed on Runway 25L some time prior to the experimental and was still sitting on the other side of Runway 25L from us, on Taxiway Golf. They had cleared the runway, taxied just past the Hold Short Line and had been attempting to contact Livermore Ground for some time. (I got this information later from the CFI in the Cessna.)

The Cessna had been sitting on Taxiway Golf, across Runway 25L from us the whole time, since before we landed, but we were unable to see it, because we were on the centerline of Taxiway Golf, and the nose of the Pitts blocked the view of the Cessna completely.

Arnie began taxiing across Runway 25L.

While Arnie was crossing the approach end of Runway 25L, he angled slightly to the right, nearing the edge of the departure end of the runway. I thought he might be starting a clearing S-turn, but it appeared there was not sufficient room to do so without getting off the pavement, so I mentioned it, telling him he should move left. He did so. At this point in time, I had been looking down and to my right at the edge of the pavement. As I turned my head through the twelve o'clock position to look left, I saw the vertical fin of the Cessna just rising above the nose of the Pitts--and we hit the Cessna.

Both aircraft moved forward several feet. The Pitts prop stopped within a second. The Cessna was still running. Arnie shut off all the switches in the Pitts. After a few moments, smelling no fuel, we turned the master and avionics master back on and tuned to Livermore Ground frequency. We heard the Cessna tell Ground that they had been hit, but Ground did not answer. We made a transmission to Ground, telling them about the accident and asking for assistance, but they did not answer. Ground Control was busy and did talk to a couple of other aircraft. At this point, I made a transmission requesting "radio priority." Ground answered, and I told them what had happened and requested assistance from the FBO and the City Terminal. Though we were in plain view to Tower and Ground during this entire accident, Ground asked us if we were clear of the runway. I said, "Yes," and reiterated my request for assistance.

Ground asked the Cessna if they could taxi, and the Cessna answered, "Yes." Ground instructed the Cessna to taxi to parking. By the time I could get a transmission in, the Cessna had already powered up and was in motion. I don't think any further damage was incurred as the Cessna pulled away, but I also didn't like that Ground had one of the aircraft involved in the accident leave the scene before we could exchange information and take photos. I requested and received permission from Ground to speak to the Cessna, and told them where they could find us after they got their plane parked.

We had the Pitts towed to the FBO, and later met the CFI and student from the Cessna.

Lots of things, circumstances and/or people could have broken the accident chain leading to this event. If we hadn't been in a taildragger... If we had turned off at an earlier taxiway... If the Cessna had pulled further forward... If Ground had answered the Cessna on one of its earlier calls...et al. None the less, the bottom line is that we rear ended the Cessna.

There are, however, a few items worth mentioning with regard to ATC.

Livermore Tower cleared us to cross Runway 25L when, clearly visible to Tower, there was an aircraft blocking the taxiway on the other side of the runway. Also, there was insufficient room behind that aircraft for us to clear the runway without striking that aircraft.

It appears that Livermore Ground Control was unaware of the Cessna blocking the taxiway, though the Cessna was in full view to Ground Control, and the mishap Cessna had made several transmissions to Ground.

Addendum: Yesterday (29 Oct 2013), while I was in the back seat of a Yak 52TD tailwheel aircraft, waiting to cross runway 25R at Livermore, the controller cleared us to cross the runway while there was an aircraft *clearly blocking the taxiway on the other side of the runway!* My Front Seater, the aircraft owner and PIC, accepted the clearance and started to cross the runway. I stopped him, then called Ground and declined the clearance to cross the active, noting that the taxiway was blocked by an aircraft. Déjà vu.



