

## Once Upon A Time...

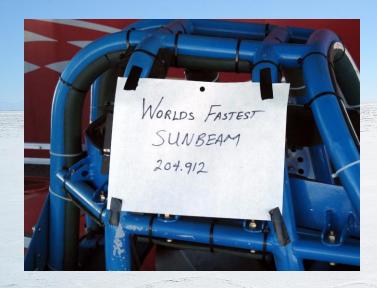
Or how #1542 became the World's Fastest Sunbeam Time Trials Car



### TWFS - What It Did

On September 16, 2010, it achieved a flying mile average speed of 204.913 mph

It also accomplished an exit speed of 210.779 mph



Impromptu

#### Official

MONTE CUMPIEN

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UTAH SALT FLATS RACING ASSOCIATION

24th WORLD OF SPEED 2010

Car # 1542
Driver MAYFIELD, LAWRENCE
Class C/BFMS
Record 213.176
Wind: 1.0 mph from the ESE
Temp: 79.9F Humid: 15%

Direction Return Doon
Daily Run # 113
Started: 09-16-10 14:39:41

 Segment
 Time
 Speed

 QUARTER
 5.41551
 166.18925
 MPH

 FIRST MILE
 20.29164
 177.41295
 MPH

 MIDDLE MIL
 18.18064
 198.01283
 MPH

 LAST MILE
 17.56843
 204.91297
 MPH

 TERMINAL S
 0.42699
 210.77937
 MPH

# One happy old geezer....



# ..the day before..

Dawn	ed bright and clear.
I wan	ted to make a shake down run
becau	se I had changed a number of things on the car:
	added a steering ratio slow down doohickey
	added a 13 gallon inter-cooler tank, pump and plumbing
	fabricated a new 4.5 gallon fuel tank
	installed the fuel tank in the trunk
	rerouted the fuel plumbing
	relocated the fuel pump
	reinstalled a full circle steering wheel
	lowered the rear spoiler down to 30 degrees

# ..the day before..

continued

Finally ready for the check ride. I get in the car and Dale		
pushes me the two or so miles to the staging line. Now we		
wait. Chat with folk who come by and take pictures. 1542		
Maybe one of the most photographed cars on the salt.		
Getting close to the front of the line Time to:		
set up the netbook data logger and start it.		
get rest of my gear on		
get in the car		
☐ get strapped in		
□ breath deeply		
start the car when directed		
uput in gear and leave line when told to		

Next page please....

#### Getting close...Dale Pulju, Chuck Colley, wife in truck



Two cars from start line

### .. the day before.. continued

There I am, strapped in by the strength of Samson, both hands stuck under that full circle steering wheel, brake foot tucked up behind the pedal and gas foot stuck behind the gas pedal, motor running. PANIC!!! I managed to pull the gear shift into gear and there I went, idling off the line... I finally managed to get my right hand free, then the left, then brake foot and right gas foot, but it took a long way down course to do it. Talk about embarrassing... I went on anyway, At 150 I threw the laundry out and slowed and pulled off course....

Crew showed up and I picked up the chute and driver's gear and put it in the truck...they were kinda snickering and laughing. My face was red....

Next page please....

# ..the day before..









## .. the day before.. continued

So, back at the pit area some things to do.		
review data log – huh? No data		
move that rear spoiler back to the preferred		
position – done		
remove and replace that full circle steering wheel		
with the go kart butterfly steering wheel – done		
inspect the car - done		
Ok, so sit back and discuss what happened with the		
crew. We did everything right except for me having		
my body parts trapped. We avow to not let that happen		
again.		
Headed back to the barn, supper and bed. Tiring day.		

### day before... back in the pits



## next day...checkout run #2.....

#### Check Run #2



Chatting with Aero guy



Intently listening and breathing deeply



Starter checking things



Off I go! With more zoom.....

## next day...checkout run #2......

I leave the line spiritedly, but not as hard as usual.

1st mile marker, about 160 according to my speedometer hmm slower than anticipated, normally around 175.

2nd mile marker. about 180 ish. Not giving it the gas.. but here comes the 5500 rpm limit I have been having 3rd mile marker. 5600, 5700, 5800 and there goes 4th mile marker. Keep giving it gas. 5900, 6000, 6100 and I quit mashing the pedal. It will go more though. I have redline set at 6500 rpm.

5<sup>th</sup> mile marker flashes by and I immediately pull the chute release. VERY big sigh of relief!

Slowing down very nicely, speed down to under a 100, turn off the course and stop on return road.

## 

I had a hunch that speeds were pretty good. Getting out of		
the car is not much fun.		
☐ Gloves off, helmet off, toss seat belts out of the way		
elbows out in front of roll cage. Pull using back of arms		
and stand up. Step over the front door. Feet on the ground!		
☐ Jacket off, booties off, gather up chute and put in seat		
☐ Safety car arrives. Old friend! Bottle of water. Hmmm,		
smoke smell. Open hood, Nothing on fire. Hands me-the		
informal hand written times. Holy Smokes!		
3 <sup>rd</sup> timed mile 204.913 mph		
5 <sup>th</sup> mile exit speed 210.779 mph		
If I wasn't so old and fat, I would have turned cartwheels!		
□Crew finally arrives. Change into shorts, put sandals on.		
□Push back to pit. Pick up official time slip. You know the		
rest of the story.  Next page please		

#### Check run #2



Crew arrives at 6 mile location



Dale, me Cathy, Chuck is photog



Big thumbs up from me!



Just nice photo of car back in pit area 2010, lol...

### Post run

Car has cooled off and while waiting, we did one very important chore: took the timing slip to the starter and he signed it. This lets me apply for my "A" driving license Which will permit me to run as fast as 300 mph. I get that license from the SCTA after the meet.

Car is inspected, no problems noted.

Also, no freaking data again!!!! Gotta fix that. Start do list for changes for next event.

Disappointed everyone when I decided to make no more runs at this event. I did so because this motor is injured and I did not want it to grenade and leave people with the memory of a failed run.



Bonneville... arriving at the mecca of speed



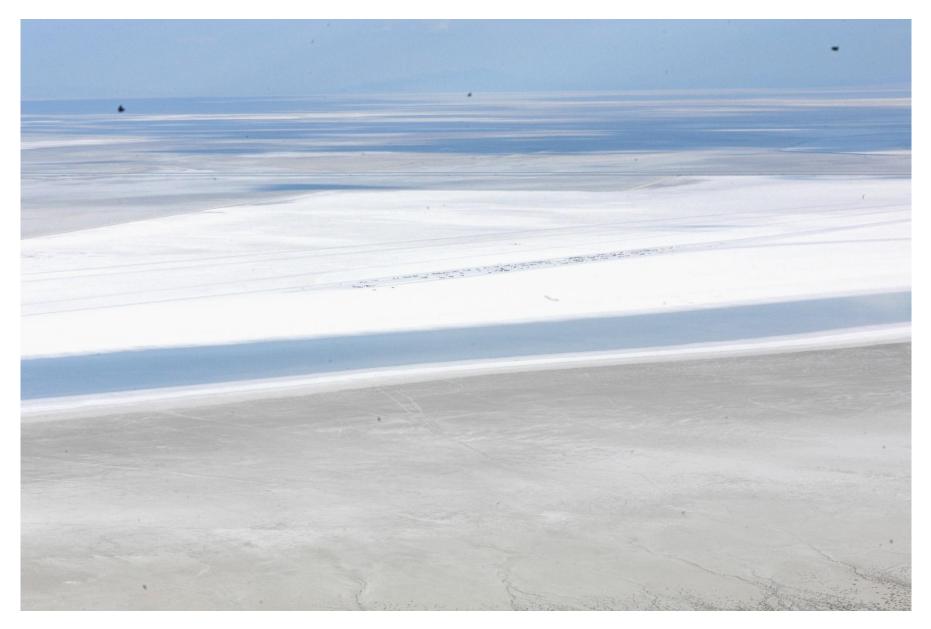
### Bonneville.. what we wanted



## Bonneville.. what we got



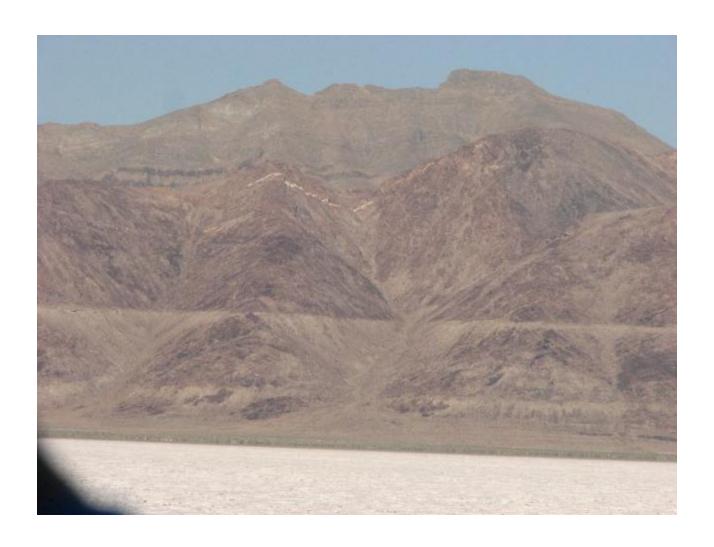
The Venue from the air...



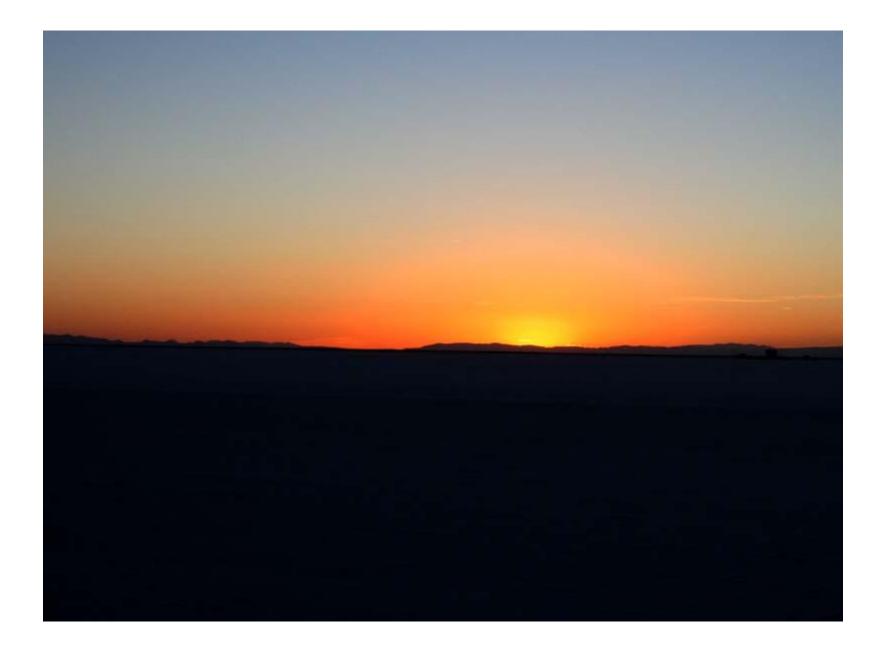
Typical Staging and Starting lines



#### **Ancient Beach Lines**









#### Motor:

- > 1989 5.0 block massaged by D.D.S.
- > D.S.S. press fit pistons, low compression, about 9.2:1
- > Stock OEM cast crank, ARP main studs
- Stock OEM Rods, but, ARP cap bolts
- Melling HV oil pump, blue printed
- ➤ DBL row timing chain on old block when I got it
- D.S.S. Main cap girdle and windage tray
- Highly modified Canton oil pan and pick up
- > Stock timing chain cover
- > Summit damper, old, came with the motor block
- Comp Cams solid roller lifters, custom pushrods
- Comp Cams Pro Comp rockers, 7/16 studs
- Comp Cams super secret turbo grind cam
- ➤ AFR 205 cc runner Out law Race Heads
- ➤ Solid copper head gaskets (blew Cometic out)
- Meziere water pump
- Turbonetics HP 72 turbo

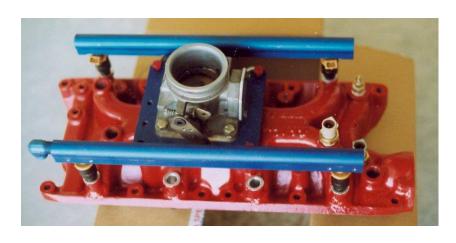
#### Motor (continued):

- ➤ Home done plumbing, ice water IC
- ► Home made headers
- Torker II intake home converted to EFI
- ➤ 95mm Holley Throttle body
- Large MAF, 3 inch diameter tubing
- ➤ 65 lb/hr fuel injectors
- OEM Dizzy
- ➤ MSD 6A spark box and coil
- Scirocco radiator in a box of water
- ➤ OEM PCM with Tweecer tuning chip
- OEM EFI harness shortened and modified





#### Intake Manifold During and After



#### Motor & Engine Compartment

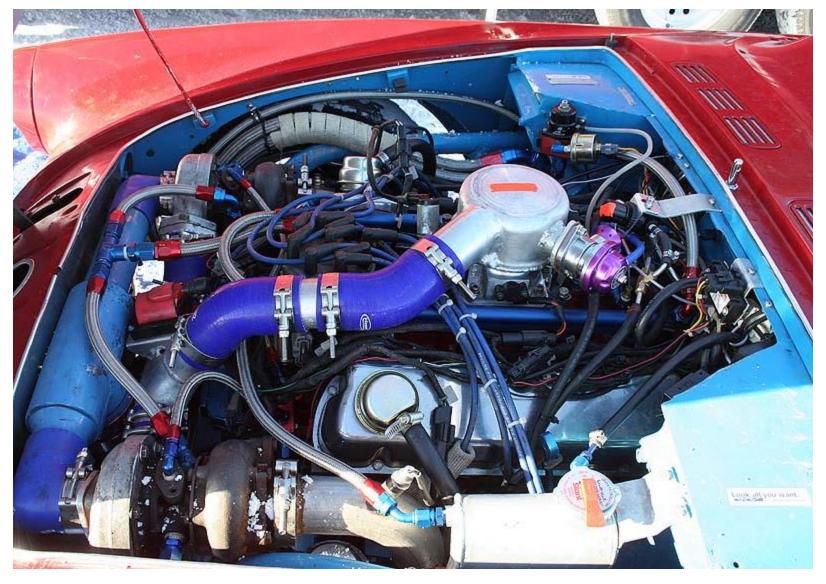


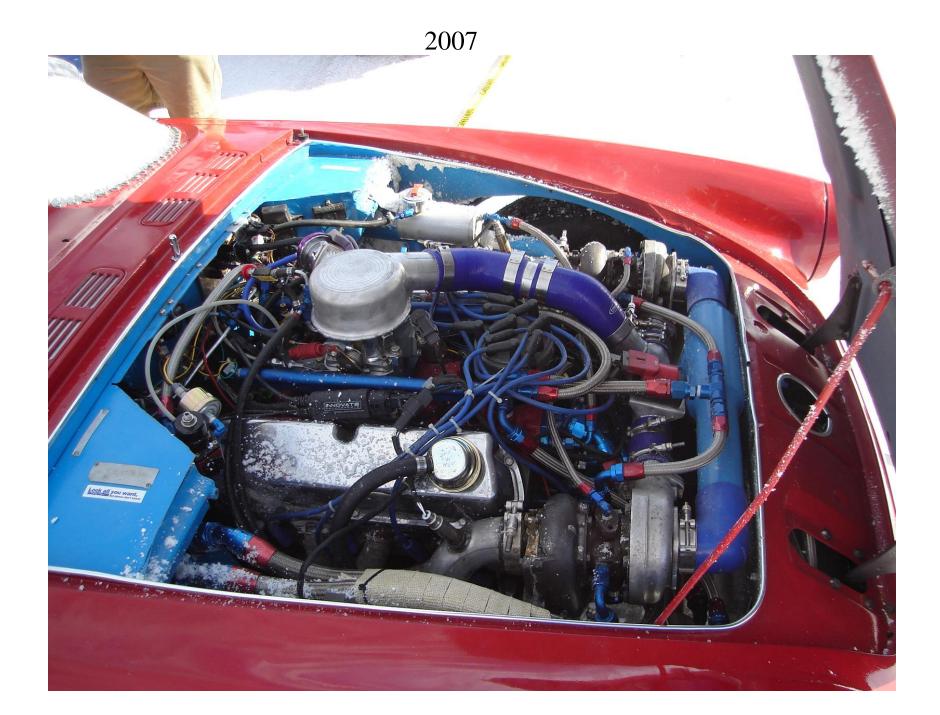












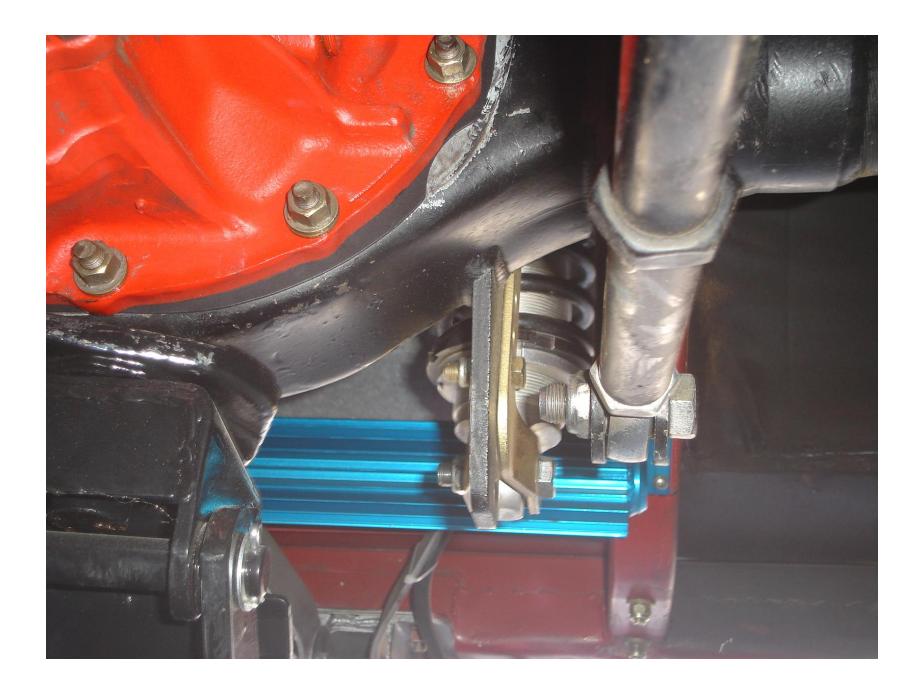
2008 & 2009



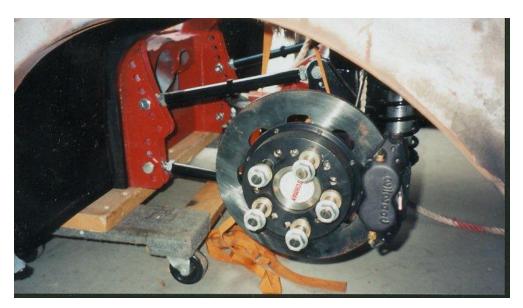


#### Chassis and running gear:

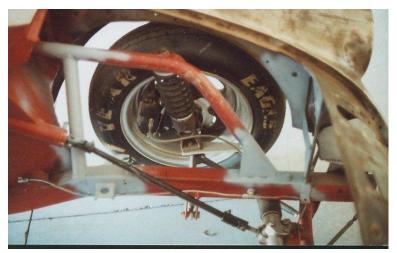
- ➤ Self designed 2 x 3 tube frame
- ➤ Art Morrison McPherson Strut front suspension
- Wilwood 4 piston disk brakes all around
- ➤ Aldan Eagle coil over shocks in the rear
- ➤ 4 link rear suspension location system
- Diagonal rear end locator
- Local fab drive shaft
- Ford 9 inch with Strange spool, 33 spline axles
- Rear gears are 2.50:1 ratio
- Front tires are Goodyear Front Runner drag tires
- ➤ Rear tires are Goodyear Front Runner LSR tires
- > Flaming River rack and pinion steering
- ➤ 1.5:1 steering ratio reducer
- ➤ Go kart butterfly steering wheel
- Self designed roll cage system











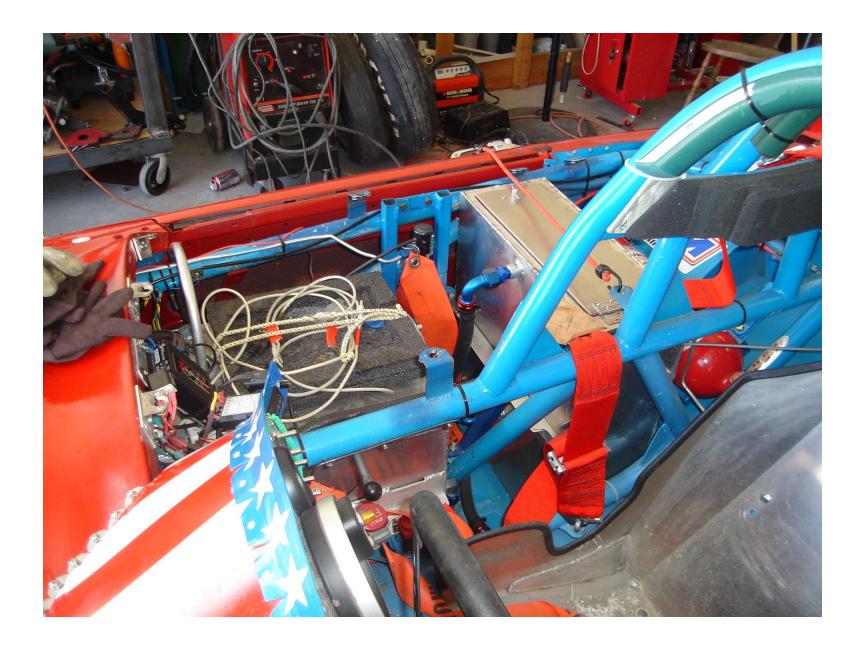
#### **Transmission:**

- ➤ Competition AOD from Performance Automatic (worlds fastest)
- ➤ B&M torque converter, full lock up
- ➤ B&M shifter, reverse pattern
- Large fluid cooler under the back of the car
- Mercon fluid

### Fuel Delivery System:

- ➤ Aeromotive 1000 hp pump
- ➤ Aeromotive fuel pressure regulator
- Aeromotive 10 micron filter
- Aeromotive 100 micron filter
- ► -8 AN Stainless Steel fuel lines to and from the motor.
- > Several million AN fittings, maybe more, lol...





## Cockpit (100 pounds in a 2 pound box):

# Motor cooling:

- Radiator in a box, Scirocco, 13 gallon box
- ➤ Meziere transfer pump to 10 gallon H2O Tank in trunk, 23 gallons total
- -16 SS braid lines to motor.

### Charge Air Cooling:

- ➤ Intercooler tank, also 13 gallons (I like prime numbers)
- Rule bait pump for ice water to intercooler up front of engine

#### Fire Safety:

- > 5 lb Halon system for the motor compartment
- ➤ 10 Lb Firefox aqueous system for driver

## Driver Safety:

- Aluminum Seat mounted to frame
- M&R Seatbelts



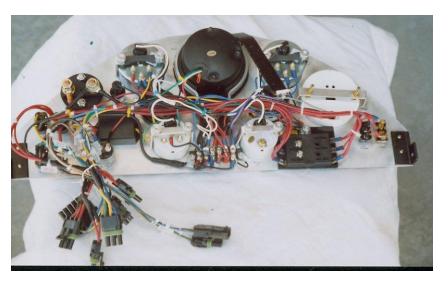
# Cockpit continued

#### Instrument panel

- > 300 mph speedo (very ambitious, lol)
- Monster Tach
- Innovate AFR display
- Oil Pressure
- Water Temp
- > Volts
- > Fuel Pressure
- Boost
- EGT add on panel

#### Switches for:

- ➤ A9P Brain Box
- Instrument panel & panel lights
- > Fuel pump
- Eng water pump
- > IC pump
- > Transfer pump
- Big Master Disconnect



# Instrument Panel Front and rear



#### Trunk:

- ➤ 4.5 gallon DIY fuel cell
- ➤ 10 gallon supplemental engine cooling tank
- Big honking Group 27 lead acid battery (Optima failed me)
- ➤ Water Injection system (going to be removed)
- > RV 150 AMP circuit breaker
- Radiator catch can
- Parachute attachment combined with push bar
- ➤ DIY spoiler (now the example in the rule book!)
- ➤ 3 Gore 10 ft diameter parachute with approx 40 ft tow/shroud lines



# Trunk with Spoiler And Parachute

