



**TARRYAN**  
WHEEL TECHNOLOGIES



# Weather Profile for Dirk's 8/29 run...

## Bottom line

Dirk had a minimal wind DISADVANTAGE during AW ( ~3 mins of head wind)

A classic ride on essentially a CALM day!

**Performance difference – AW ahead 21 secs!**

- Wattage Average difference = STD had 7 watts less

-Time difference – 21 secs in favor of AW wheel

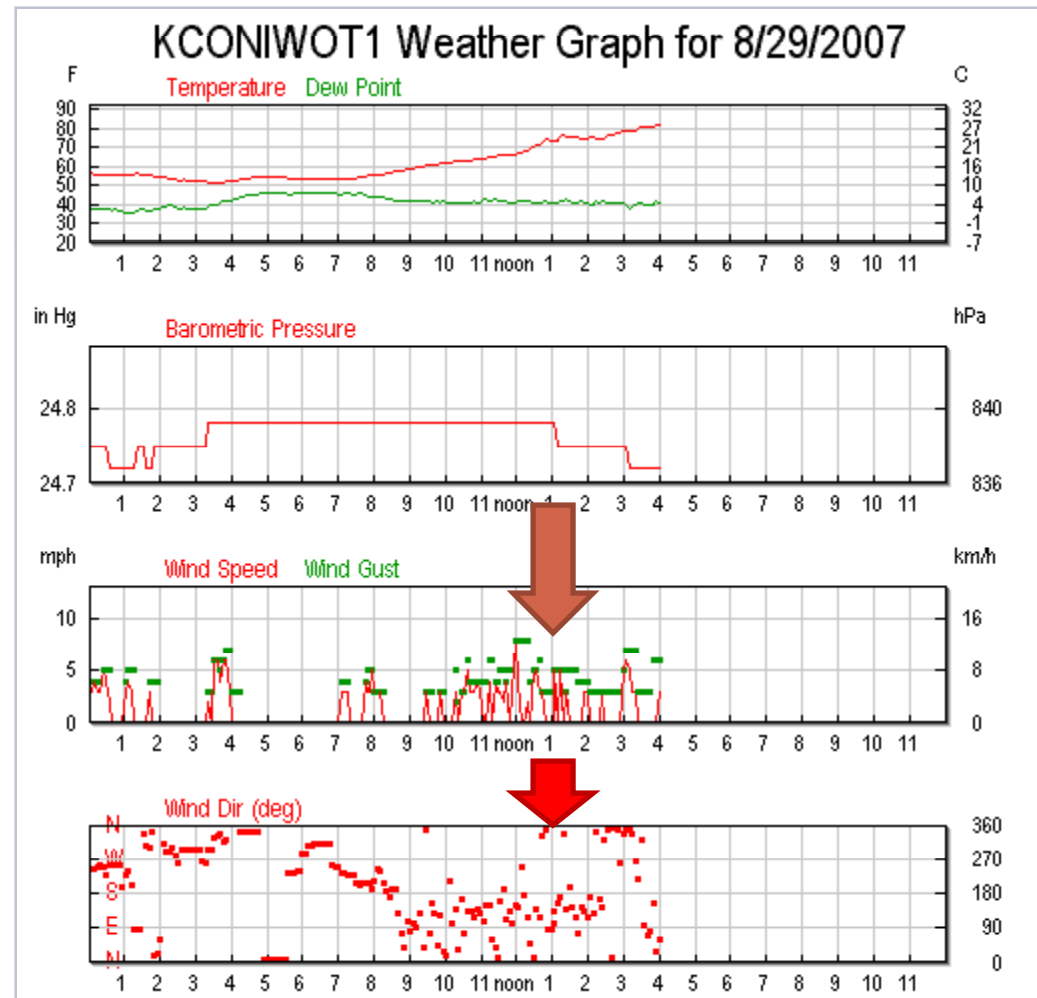
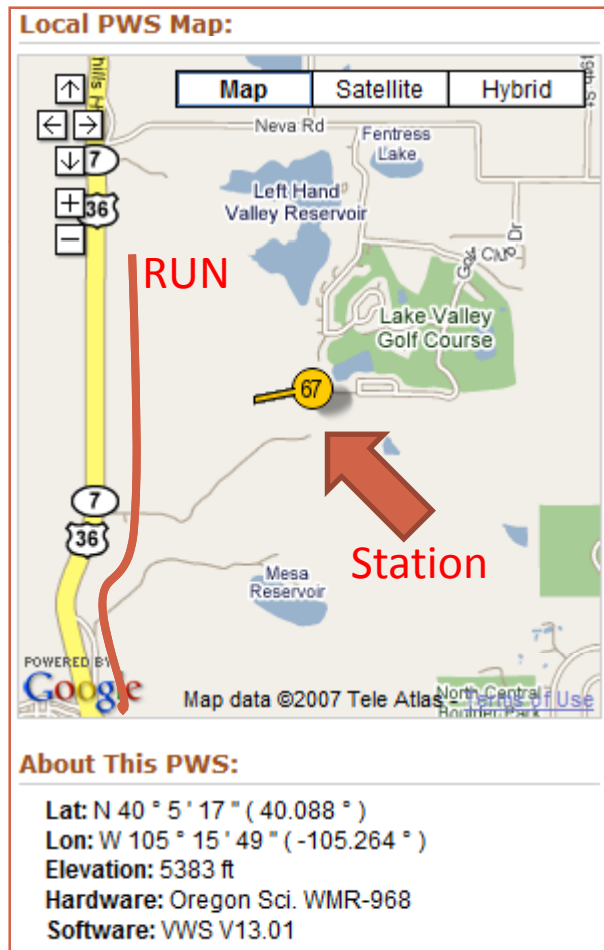
**Good result for AW Concept !**

# High level Assessment



Location of Weather Station  
Ridge @ Lake Valley

AW run at 1:08PM - STD run at 1:44pm & 2:35pm  
Wind direction was mildly variable during this period.



# Tabular - detail



Tabular Data for August 29, 2007								
Time	Temperature	Dew Point	Pressure	Wind	Wind Speed	Wind Gust	Humidity	
AW	13:08	73.8 °F / 23.2 °C	40.5 °F / 4.7 °C	24.75in / 838.0hPa	Calm		5mph / 8.0km/h	30%
	13:13	76.1 °F / 24.5 °C	42.5 °F / 5.8 °C	24.75in / 838.0hPa	South	5mph / 8.0km/h	5mph / 8.0km/h	30%
	13:18	76.5 °F / 24.7 °C	41.9 °F / 5.5 °C	24.75in / 838.0hPa	Calm		5mph / 8.0km/h	29%
	13:23	76.3 °F / 24.6 °C	42.6 °F / 5.9 °C	24.75in / 838.0hPa	SE	3mph / 4.8km/h	3mph / 4.8km/h	30%
	13:28	76.1 °F / 24.5 °C	41.6 °F / 5.3 °C	24.75in / 838.0hPa	Calm		5mph / 8.0km/h	29%
	13:33	75.6 °F / 24.2 °C	41.1 °F / 5.1 °C	24.75in / 838.0hPa	Calm		5mph / 8.0km/h	29%
	13:39	76.3 °F / 24.6 °C	40.8 °F / 4.9 °C	24.75in / 838.0hPa	Calm		5mph / 8.0km/h	28%
STD	13:44	76.3 °F / 24.6 °C	40.8 °F / 4.9 °C	24.75in / 838.0hPa	Calm		4mph / 6.4km/h	28%
	13:49	75.2 °F / 24.0 °C	41.7 °F / 5.4 °C	24.75in / 838.0hPa	Calm		4mph / 6.4km/h	30%
	13:54	74.9 °F / 23.8 °C	41.4 °F / 5.2 °C	24.75in / 838.0hPa	SE	3mph / 4.8km/h	4mph / 6.4km/h	30%
	13:58	74.7 °F / 23.7 °C	41.2 °F / 5.1 °C	24.75in / 838.0hPa	ESE	3mph / 4.8km/h	4mph / 6.4km/h	30%
	14:03	75.6 °F / 24.2 °C	40.2 °F / 4.6 °C	24.75in / 838.0hPa	Calm		3mph / 4.8km/h	28%
	14:08	75.6 °F / 24.2 °C	40.2 °F / 4.6 °C	24.75in / 838.0hPa	Calm		3mph / 4.8km/h	28%
	14:14	75.2 °F / 24.0 °C	41.7 °F / 5.4 °C	24.75in / 838.0hPa	Calm		3mph / 4.8km/h	30%
	14:18	74.9 °F / 23.8 °C	40.5 °F / 4.7 °C	24.75in / 838.0hPa	Calm		3mph / 4.8km/h	29%
	14:23	75.4 °F / 24.1 °C	41.9 °F / 5.5 °C	24.75in / 838.0hPa	SE	3mph / 4.8km/h	3mph / 4.8km/h	30%
	14:28	75.4 °F / 24.1 °C	41.9 °F / 5.5 °C	24.75in / 838.0hPa	Calm		3mph / 4.8km/h	30%
STD	14:34	77.2 °F / 25.1 °C	40.7 °F / 4.8 °C	24.75in / 838.0hPa	Calm		3mph / 4.8km/h	27%
	14:39	77.0 °F / 25.0 °C	41.5 °F / 5.3 °C	24.75in / 838.0hPa	Calm		3mph / 4.8km/h	28%
	14:44	77.0 °F / 25.0 °C	40.5 °F / 4.7 °C	24.75in / 838.0hPa	Calm		0mph / 0.0km/h	27%

> Ride began at 12:48 pm – AW run began 20mins later @ 1:08 pm – winds were CALM  
 Except for one sample (few mins?) from ~South i.e. head wind of ~ 7km/h with gusts of ~7km/h

>STD run began 56 mins after 12:48pm – thus 2<sup>nd</sup> run began at 1:44pm – winds were calm  
 Except for one sample coming from SE i.e. head wind of ~4km/h with gusts of 4km/h

# WKO+ Information from Dirk

Workout Settings	
Athlete name	Friel, Dirk
Workout date	Wed 8/29/2007
Workout time	12:47:57 PM
Sport type	Bike
Workout code	
Athlete weight	166 lb
Max heart rate	198 bpm
Threshold heart rate	175 bpm
Threshold power	360 watts

Notes	Options
80°F SRM Powercontrol V SRM calibration- 316 I felt incredible today. I felt so good that after my second test run with STD I added a long climb and then just decided to go ahead and add a third STD test run. So for what it is worth I did one AQW test and two STD tests. wind was definitely unfavorable and got worse with the 3rd test.	

AW test	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Duration: 9:20.40 ( 9:49.60)	
Work: 189 kJ	
TSS: 13.6 (0.934)	
Norm Power: 336	
VI: 1	
Distance: 4.405 mi	
	Min Max Avg
Power:	0 632 337 watts
Heart rate:	0 198 158 bpm
Cadence:	30 114 98 rpm
Speed:	0 38.6 28.3 mph
Pace:	1:33 0:00 2:07 min/mi
Crank Torque:	0 1053 293 lb-in

AW test	
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Duration: 9:41.40 (10:12.20)	
Work: 192 kJ	
TSS: 13.6 (0.918)	
Norm Power: 331	
VI: 1	
Distance: 4.388 mi	
	Min Max Avg
Power:	0 612 330 watts
Heart rate:	0 225 153 bpm
Cadence:	51 111 96 rpm
Speed:	2.4 39.1 27.2 mph
Pace:	1:32 25:25 2:13 min/mi
Crank Torque:	0 873 292 lb-in

STD test #1	
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
Duration: 9:34.20 (10:04.60)	
Work: 192 kJ	
TSS: 13.7 (0.926)	
Norm Power: 334	
VI: 1	
Distance: 4.388 mi	
	Min Max Avg
Power:	0 620 334 watts
Heart rate:	0 196 161 bpm
Cadence:	31 111 97 rpm
Speed:	2.9 39.6 27.5 mph
Pace:	1:31 20:59 2:11 min/mi
Crank Torque:	0 915 293 lb-in

## Performance difference – AW ahead 21 secs!

- Wattage Average difference = 1<sup>st</sup> STD = 7 watts less
- Wattage average difference = 2<sup>nd</sup> STD = 3 watts less than AW run
- Time difference 1<sup>st</sup> run – 21 secs in favor of AW wheel; 2<sup>nd</sup> run 14 secs in favor of AW