

## **A2 WIND TUNNEL CYCLING SEMINAR**

**Courtesy of Rick McCall, June 30, 2009**

I got my first chance to visit a wind tunnel this past Saturday June, 20 when I attended the A2 Wind Tunnel cycling seminar. Located in Mooresville, NC they are in the heart of NASCAR country and provide an invaluable service to the automotive racing field. It is not unusual for them to conduct aero-tests for cars on a 24/5 basis.

Approximately three years ago they opened the new A2 Wind Tunnel and turned their attention to the cycle racing community. Bicyclist Specialist Mike Giraud joined their team and started a concerted effort to display the advantages they could offer to time trial and triathlon athletes. In the last three years, Mike has performed more than 300 aero evaluations on cyclists ranging from new racers to world champions. He tested several World Champions in 2008 and is working with most of the expected top ten finishers in the 2009 Hawaii Iron Man Triathlon.

General Manager Dave Salazar opened the seminar with a history of their facility and a detailed tour and description of the data gathering ability of their systems. Mike followed with a brief presentation on the aero effects of a cyclist and how they can differ from one rider to the next. This was followed by a rider assisted evaluation of wind drag and power output demonstrating the ability of the tunnel and how different variables can have significant effects on performance.

This demo provided the perfect chance to drive home a point that Mike made; “your position on the bike can be more important than the equipment you wear or have on the bike”. To demonstrate this point Mike conducted a baseline test with the rider in a standard TT set-up and comparing two different head positions with two different helmets. One was an aero helmet, while the other was a traditional road helmet. The test results were quite interesting. First, as you could imagine, the aero helmet with the proper head position had the greatest reduction in drag. However, the road helmet with the rider’s head in the proper position was practically equal to the aero helmet when the rider’s head was not in the optimal position. These tests verified the statements that Mike made earlier about how important position really is.

Mike also returned to another point made throughout the seminar; “every rider is different in the wind and what works for one rider may not work for others”. He continued this train of thought with; “we all come to cycling with different attributes, some can produce more power, others are more adept at being aero, so our evaluations may lead us to different solutions based upon your physical attributes”. Having stated the above Mike told us of results that showed as much as 20% improvements in performance after the evaluations.

The seminar concluded with a Q&A session that covered a wide range of topics. One I found interesting was the need to shave our legs to reduce wind drag. Mike answered the question by telling us; “unless you are excessively hairy, it’s not something most of us

need to worry about. Until you have exhausted every other aero advantage, this falls pretty far down the priority list”.

I found the seminar to be informative and a lot of fun. Dave and Mike do a very good job of making everyone feel comfortable. I highly recommend giving the August 22 seminar a try; **it's free!** You won't find another venue that offers the potential to learn more about yourself as a cyclist. Finally, you will have the chance to determine if you want to avail yourself of the A2 Wind Tunnel in your efforts to reach your cycling potential. Contact Mike Giraud to reserve a seat for the August event: [mike@aerodynwindtunnel.com](mailto:mike@aerodynwindtunnel.com).

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