Buckeye Bullet Results from the Bonneville Salt Flats

The Ohio State University's electric LSR (land speed record) vehicle, the Buckeye Bullet, traveled to the World Speed Finals at the Bonneville Salt Flats in Utah, October 16th through the 19th. The car has been entirely designed and managed by the Ohio State University's student engineering Formula Lightning Team at the Center for Automotive Research and Intelligent Transportation (CAR-IT) for the past two years.

The goal for the 31 foot long Buckeye Bullet is to beat the World Land Speed Record of 245 mph. On its first trip to this legendary speed track, the battery powered vehicle reached a peak speed of 260 mph! The Buckeye Bullet made five runs during the World Speed Finals, here's the rundown on how the week went and how the car performed:

The first couple of days were spent getting the car through the technical inspection. There were a couple of issues that the team had to tend to with the body. There was concern about the tire clearance when the car was at speed because the tires grow when running at 200+ mph. After some modifications, the technical inspection finally went our way and we were up and running on Thursday.

There are also speed rated driver's licenses required for safety reasons. These had to be obtained by our Buckeye Bullet driver, Craig Taylor. The driver's licenses are awarded in various mph increments. Craig received all of his driver's licenses and can go as fast as the car will take him! These licenses are good for next year so we won't have to repeat the licensing process.

The first run was a shakedown run to make sure the car was stable. The first run resulted in 138 mph! The car remained stable for the second run which resulted in 174 mph, using only 160 horsepower of the 500+ horsepower motor. In fact the car was so stable, that our driver, Craig Taylor, didn't have much of a sense of how fast he was really going; he mentioned something about putting in a CD if there was a CD player on board! The third run couldn't have gone better: we reached a speed of 230 mph! Craig did start to feel the car become a little unstable around this speed and he wasn't sure if it was the car or the track. He wanted to repeat the run of 230 mph to make sure there weren't any safety issues with the car. The fourth run duplicated the 230 mph speed flawlessly and it was, in fact, the track that made the car shake a little bit on the third run. As we waited in line to perform our fifth run, there was an accident on the track that slowed down the run cycle. We finally made our fifth run and reached an average speed of 241 mph with a peak speed of 260 mph. The runs are calculated by taking four different speed readings throughout the run and averaging the fastest split between mile markers.

In order to obtain the official world record, the run has to be certified by the governing body, the FIA. This involves cash—up front, prior notification of the attempt and two runs—one in each direction. These two runs have to be made within a required one hour time frame. By our fifth and final run, we had run out of time to go for the World Record. This was on Saturday afternoon and the FIA was going to be holding the last runs for the World Record contenders shortly after what was our final run. The meet was extended through Sunday but the FIA would not be there to make the record official. The FIA will return to Bonneville in October 2003.
There were more than 130 entries at this event and it was much larger than anticipated due to the prior event being rained out. This meant long wait times in between runs—up to four hours! This contributed to the time constraints as well as the few accidents that occurred on the track during the week.

Photo Courtesy of Dave Perdue, Ashland Chemical Company

We had a great run at it for our first time out at The Salt Flats with the Buckeye Bullet. In fact, we had a lot of veteran racers who have been going to Bonneville for 20+ years, who were supporting us and telling us that we were lucky to even get out on the salt for it being our first time out! The overall performance of the car exceeded our greatest expectations.

Aside from an issue with a few of the battery packs and a leaky tire and wheel, there were no catastrophic problems at all. Our driver was safe and with a peak speed of 260 mph, we are confident we will break the World Record of 245 mph next year. The car was still accelerating at this speed and the motor wasn't operating at full power.

We also had some conversations with a photographer and feature editor from Motor Trend Magazine. We spent a couple of days with the gentleman and he was very interested in the car and the story behind it. We have high hopes that there will be an article in Motor Trend which has a circulation of 1.3 million readers! There were also some rumors floating around that Car and Driver may feature the Buckeye Bullet in an article. A world-famous auto photographer, Jesse Alexander, expressed some interest and took an extensive amount of photos of the car, so we'll have to see where that goes! We had a visit from the Associated Press and they took a few hours of footage and put it into a short video for the University. There has already been an article in the local Fort Wayne, Indiana newspaper where Phelps Dodge, a major sponsor, is headquartered. We think this is just the beginning of good things to come!

A few sponsors were able to join the crew out in Bonneville: Phelps Dodge Magnet Wire, Ashland Chemical, Shoemaker Industrial Solutions, Nigel McQuin and Jeff Kletrovets. Special thanks to all of the sponsors of the project. This would not have become a reality without the help and contribution from all of those who participated. Thank you for your generosity and positive influence.

The team plans to return to Bonneville in August 2003 where they will attempt to beat the National Record and will also return in October 2003 to attempt to beat the World Record. For more information on the World Finals visit http://www.scta-bni.org. For additional sponsorship information contact Todd Rodrick, the Buckeye Bullet team leader at CAR-IT, 614-688-4084 or visit http://www.buckeyebullet.com.