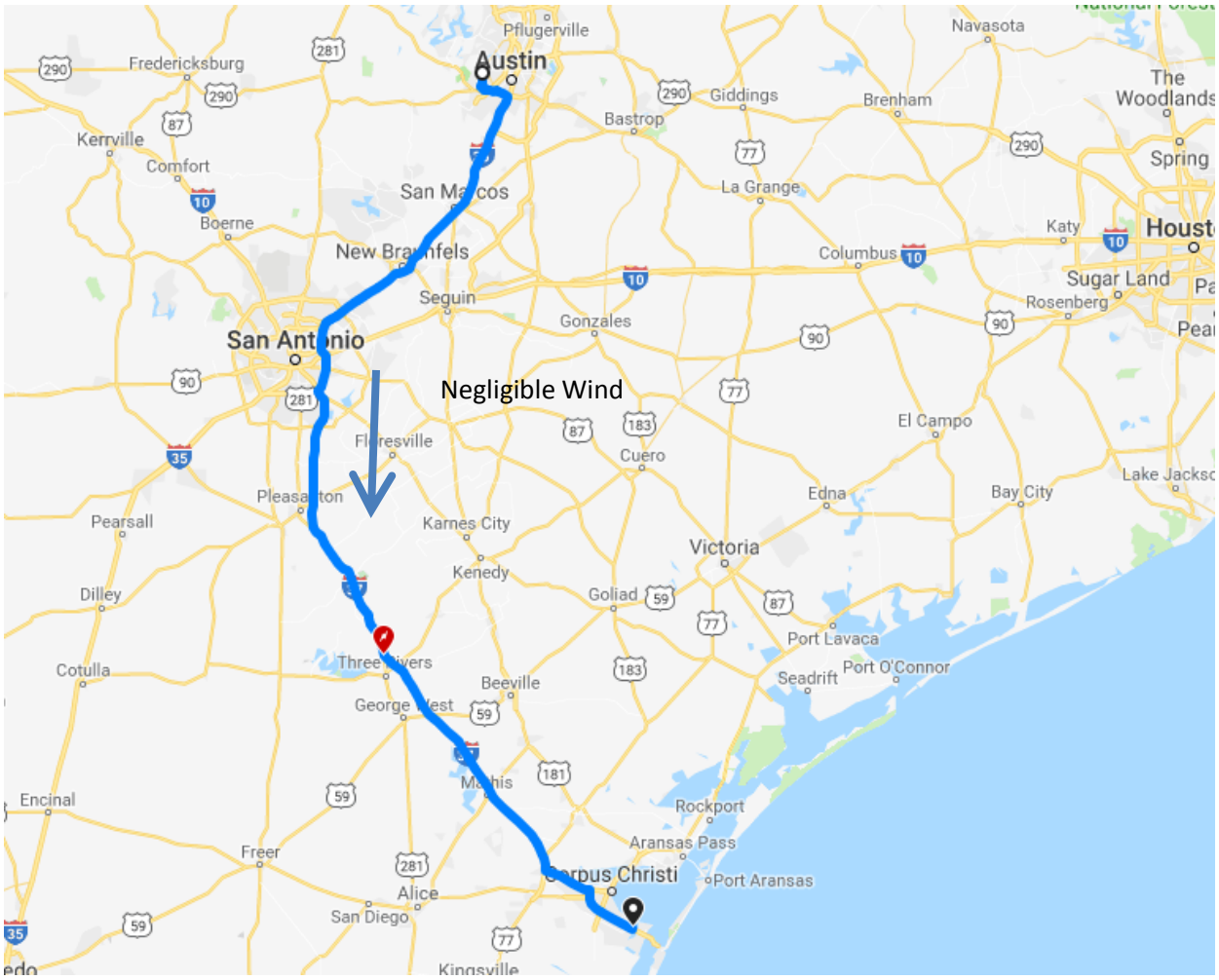
Tesla Model 3 Long Range Driving Experience January 2019

Here is my first long range driving experience in a Tesla Model 3 after driving locally for about a month. When we bought the long range version with a 75 kWh battery we envisioned it being able to go from Austin to Corpus Christi, 220 to 230 miles nonstop. My friends Sam and Bob said I would be stranded on this first trip. A song: https://1drv.ms/u/s!AjwMVUYUMHd5grM2J-jPRwRDBkeTIw

The Tesla3 extended range 75 kWh battery is advertised at 310 miles or about 4 miles per kWh. For comparison, the Tesla Roadster with a 200 kWh battery is advertised as 600 miles range or 3 miles per kWh. I found that you can get the 4 miles per kWh if you keep your highway speed down to 50 mph or follow a large truck when driving at 70 mph. The car has extensive monitoring and predictions to allow you to know if you are going to make it home or to a Tesla Super Charging station. The following may be helpful additional information.

Using www.tesla.com/trips you can plan your Super Charging station stops. I planned an Austin to Corpus Christi trip and Tesla recommended a planned stop at Three Rivers.

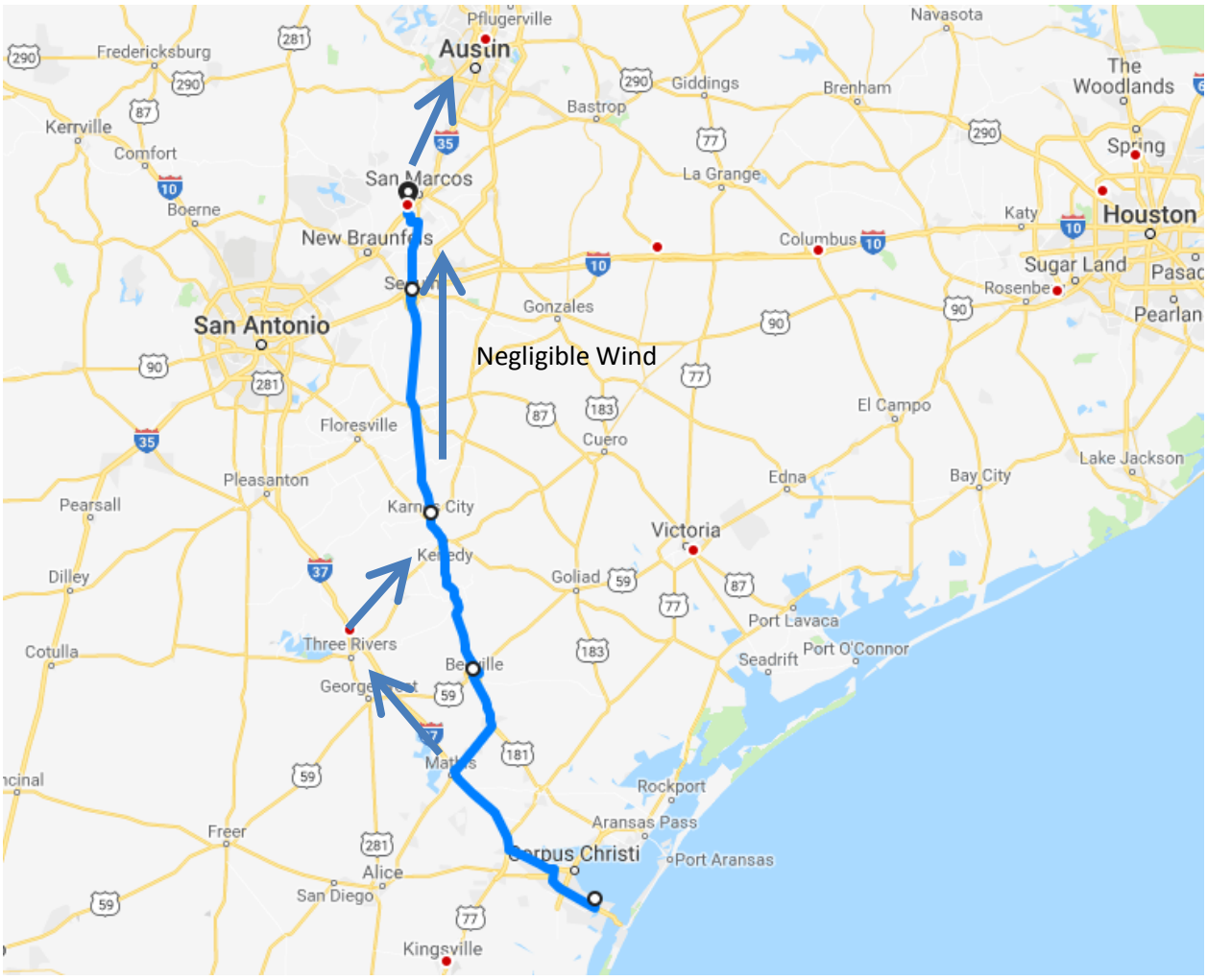


Tesla Model 3 Long Range Driving Experience January 2019

We (wife and I) did stop at Three Rivers to take advantage of 6 months of free charging. The charger showed a charge rate of 100 kW or 400 mph, which is consistent with the 4 miles per kWh range for the car. I learned that once Tesla finishes charging, you have 30 minutes extra parking, or else risk paying to park longer. Tesla does not want you topping off the battery since topping off the battery requires a slower charging rate. Top it off at your home.

When I first received the Tesla 3, I charged it up to the 310 miles to verify it would charge up to that level. 1000 miles later the max charge the battery will hold is 308 miles. Although topping off at 240 VAC is okay, the slow 5 mph charge rate of the 120 VAC works better to top off the final charge to squeeze out the last bit of charge that can be added to the battery.

When I reached my destination in Corpus Christi, I charged up at 240 VAC for a few hours and then at 120 VAC to top it off at 308 miles range to drive the 220 miles home. Just in case I needed charging before reaching Austin, there is a Super Charging station in San Marcos.



Tesla Model 3 Long Range Driving Experience January 2019

When we left Corpus Christi we drove Interstate 37 all the way to Three Rivers since the road is a very fine highway with light traffic and very gentle hills. I set the cruise control at 70 mph and did not follow traffic. I was hoping we could make it home at that good clip. The Tesla 3 is very quiet so it greatly helps to use the cruise control to maintain a constant speed.

The planned non-charging route home is 10 miles shorter, avoids heavy San Antonio traffic, and allows a stopover at Lucita's Tex Mex restaurant in Kenedy for a great lunch. But there was a problem I noticed when turning off I37 on the road to Kenedy. The Tesla 3 was predicting I would run out of energy about the time I reached home. I thought, drive slower.

My 70 mph speed was only getting about 3 miles per kWh on the interstate. After turning off I37 I slowed to 50 mph and the efficiency improved to 4 miles per kWh. 50 mph is too slow and everyone was passing me. We reached Kenedy at 11:30 am which was perfect for lunch.

When we left Kenedy I closely monitored the difference between predicted range and remaining miles which was holding pretty steady at 43 miles. I was now following large trucks at about 65 miles per hour on the way to San Marcos where there is a charging station.

When we arrived at San Marcos we were reading 82 miles battery range and 40 miles from home. We decided to skip the charging station. Heading north from San Marcos, the traffic was very heavy with large trucks, and everyone was going at least 70 mph. I followed the trucks all the way into Austin. At 60 miles range remaining, the battery indicator turned red as a warning, which is not a good sign. When we were 10 miles from home, the battery still said 50 miles range, and I knew we were okay. Arriving home we had only 38 miles of battery left. When we pulled to a stop in our garage, a message popped up on the screen to charge the EV immediately to keep the battery warm. I connected our 240 VAC/40 amp Tesla charger and set it to 90%. 100% means 310 miles regardless of battery health. In town, Tesla recommends charging to anywhere between 50% and 90%. There are a few reports that small charges daily may be bad for the battery. We should charge to 100% every few months before a long trip. I'm not sure what range I should be using in the charge/discharge cycle to maximize battery life. Charge and discharge cycles show at least 150,000 miles range and possibly up to 400,000 and maybe even 800,000 miles range for the life of the car. At this point we don't really know.

Next time we take a direct nonstop trip to Corpus Christi I will follow large vehicles when convenient. I've done this for decades without breaking a window in a Prius. Use good sense on who you follow for their wind shadow. The only time I was hit by a small rock making a chip in the glass was due to a truck passing us in the oncoming lane on a two lane road.