News reports tell us autonomous truck developers are ready to take their new technology to the fleets for real-world evaluation runs.

If you read my June 2022 NAFCE Autonomous Blog, you know I went for an hour-long drive in a TuSimple self-driving truck during the Advanced Clean Transportation Expo (ACT Expo) in Long Beach, CA, in May. You can read all about my impressions of that experience here.

One thing I didn’t note in that account was that while I was behind the wheel of that Peterbilt Model 279 fitted with TuSimple’s PlusDrive autonomous control system in an absolutely seamless drive through heavy Los Angeles traffic, I couldn’t help but wonder just how perfect these systems were going to have to be before developers finally began running serious, extensive, field tests with fleets.

That’s because the TuSimple truck — and indeed, every single autonomous truck I’ve ridden in — has performed so flawlessly on public roads and heavy traffic that it seems to me that they’re ready to go.

But — trust me on this — I’m no engineer. And clearly, there are massive amounts of global investment dollars and a potential product market with many billions of dollars more at stake — as well as the absolutely critical public safety factor to consider. So, the autonomous developers aren’t taking any chances. They clearly want to get this right from the get-go.

Last year, John Krafcik, Waymo chief executive, in an interview with the Financial Times, said that designing and deploying autonomous trucks in fleet operations was as technically challenging as landing men on the Moon.

If that’s the case, then we’re very quickly moving into the Gemini phase of this global, multi-corporation effort — the portion of the program where the basic technology has been proven (i.e., Project Mercury) and we’re now ready to begin methodically and carefully testing systems in real-world situations.

For NASA, Project Gemini meant carrying two-man crews into orbit and completing complex docking and undocking operations in zero-gravity. For autonomous trucks, this phase means handing autonomous trucks over to fleets and letting them go to work out in the real world.

And this is happening right now — in late June 2022.

As part of J.B. Hunt and Waymo’s collaboration on autonomous trucking technology, the two will deliver goods to J.B. Hunt’s customer Wayfair via an autonomous Class 8 unit. The pilot project will span six-plus weeks during July and August and take place along the Interstate 45 corridor between Houston and Dallas, the location of J.B. Hunt and Waymo’s original pilot nearly one year ago. Waymo announced a new slate of field trials with J.B. Hunt and Waymo Via, the company’s autonomous trucking unit powered by the Waymo Driver technology. These trials will run for at least six weeks, and deploy two fully autonomous trucks running on the Interstate 45 corridor between Houston...
and Dallas. Waymo said the project will be the first in-depth transportation of home furnishings retail freight between J.B. Hunt and Waymo Via.

And quietly, other autonomous truck field trials are taking place right now, as well. For example, Kodiak Robotics recently announced that its technical partnership with Southern Tire Mart/Southern Tire Mart at Pilot, has led to the development of its new, easily replaceable SensorPod hardware. This is a maintenance-focused field trial that Kodiak said, “clears a critical hurdle for the commercialization of self-driving trucks,” by making the replacement of autonomous system sensors about as complex as changing a tire.

And back in May of this year, Torc Robotics made headlines by announcing that it was partnering with Penske Truck Leasing in a two-pronged project that will establish Penske as the maintenance service provider for Torc’s autonomous trucks and serve as the test fleet for field trials. At the time of the announcement, Michael Fleming, Torc founder and CEO, explained that Torc’s goal with Penske is, “...to integrate our trucks into the existing freight industry, and we are confident that a current industry leader, like Penske, will provide crucial support in doing just that.”

These stories aren’t front-page news when they break. There is, after all, an awful lot going on in the world today. So, it’s easy for them to fly under trucking’s collective radar a bit. But, without question, autonomous truck developers are now clearly beginning to work hand-in-hand with fleets and service providers to fine-tune their technology and prepare for a day soon when the first autonomous trucks will take their place beside human-driven commercial vehicles and begin a whole new era in modern transportation.

As part of J.B. Hunt and Waymo’s collaboration on autonomous trucking technology, the two will deliver goods to J.B. Hunt’s customer Wayfair via an autonomous Class 8 unit. (Graphic: Business Wire)