



A MODEST REWARD FOR EARLY AUTONOMOUS ADOPTERS?

Is it time for trucking to start talking about a regulatory break for early-adopter autonomous fleets?

A couple of weeks ago, I found myself in San Jose, California at Plus' new corporate headquarters. I was there to take a Peterbilt Model 579 tractor-trailer out for a long evaluation run and get a better feel for how the PlusDrive autonomous control system works on crowded California freeways.

I first experienced PlusDrive last May, during a brief drive at the Advanced Clean Transportation Expo (ACT Expo). And it's not an autonomous system in the way many of us have been conditioned to think about self-driving trucks.

PlusDrive is all about driver safety, according to Shawn Kerrigan, COO and co-founder of Plus. He notes that in 2016, Plus demonstrated a Level 4 autonomous control system for trucks — mainly to demonstrate that the company possessed the technological capability to deploy such an advanced system. But with that bar set, the company began to look at a more basic, introductory, autonomous system that could significantly boost driver safety, while easing the trucking industry into the autonomous era with a system that was easy to learn and easy to use.

As a result, PlusDrive is really more of a driver assistance system, as opposed to a full autonomous vehicle control system. Nothing at all happens without the driver making a decision and initiating PlusDrive to make it happen. For safety reasons, PlusDrive cannot be engaged in urban driving situations. It's solely for highway use. And the driver is decidedly in charge of the truck at all times. Even in autonomous mode, it's the driver who decides where the truck is going, how it will get there, and what lanes it will be in on the highway.

What PlusDrive does is help the driver manage the highway environment. It tracks vehicles 360-degrees around the truck, accelerates or decelerates according

to traffic conditions, deals with merging situations in a truly impressive fashion, holds the truck in the selected lane, or changes lanes if the driver chooses. All the driver has to do to keep PlusDrive on the job is let it know they are there every 15 seconds. They can do this by putting pressure on the steering wheel, or simply tapping the system's "Engaged" button on the steering wheel. If PlusDrive doesn't get that confirmation that someone is behind the wheel and minding the store, it will disengage and — if the driver does not reactivate the system — bring the truck to a full, safe stop.

Interestingly and importantly, PlusDrive is "only" a Level 2 autonomous control system, according to the company's engineering team. And the system can be retrofitted on any recent-model Class 8 truck. So, it seems likely that this system, and others like it, will be the first introduction many fleets and drivers have to autonomous vehicle control systems.

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PlusDrive works extremely well and takes a lot of stress out of tense driving situations. The system never gets tired. Never lets down its guard. Speeding is not an option — so you don't have to worry about watching out for Smokey. In fact, PlusDrive is such a safety enhancement tool, and makes the driver's job so much easier, after my trip, I found myself wondering if



A Kenworth T680 and a Peterbilt Model 579 equipped with PlusDrive autonomous vehicle control systems await their next highway runs outside Plus headquarters in San Jose, California.

trucking should consider petitioning the Federal Motor Carrier Safety Administration (FMCSA) to grant a daily Hours of Service (HOS) extension to drivers whose electronic logging devices (ELDs) verify the truck was in autonomous mode for a majority of the miles covered during a shift.

To my mind, this is a win-win-win scenario for trucking. To begin with, it seems obvious that given the benefits of a “mere” Level 2 system like PlusDrive, autonomous technology is coming to trucking. Soon. So, it makes sense to start getting fleet managers, technicians and drivers familiar with the technology as soon as possible. And what better way to do that than by offering fleets a clear productivity and financial advantage for using a new technology?

Just a mere two hours’ addition to a driver’s daily HOS allotment, spread out over a large fleet, would pay big dividends for both driver and fleet productivity and profits. Drivers would earn more money on a daily and weekly basis. And they’d cover more miles without giving in to the urge to break the speed limit. In a five-day work week, another legal two hours a day would translate to an additional 10 hours behind the wheel for drivers. And, assuming the trucks averaged 60 mph for those two additional hours a day, that would put an

individual truck another 600 miles further down the road at the end of a five-day run.

That’s not a bad return on an investment in a driver safety enhancement technology.

And I’m not alone in thinking this way. After my drive, I asked Kerrigan about the possibility of an FMCSA HOS extension for adopting a system like PlusDrive, and he agreed that the idea had merit. “We’re talking to FMCSA about new regulations along these lines now,” he told me. “However, FMCSA rule changes are driven by data. And the agency is going to need a lot of data before it can make any recommendation regarding an autonomous exemption for HOS. But we are gathering data now and discussing options with several concerned regulatory agencies.”

My feeling is that we are quickly approaching the time when it will make sense for OEMs, tech companies, fleets, drivers and government to come together and start hashing out some real-world regulations that reflect the coming impact autonomous trucks will have on our industry and public roads. A modest proposal that rewards safety is, in my opinion, an excellent place to start.

About the Author: Jack Roberts is a transportation journalist who has been covering North American commercial vehicles for 25 years and has developed a reputation as a leading authority/futurist concentrating on new trucking technology, including autonomous vehicles, battery-electric trucks and emerging blockchain technology.



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