

COMMERCIAL MOTOR VEHICLE PRE-SCREENING TECHNOLOGY



Capt. Eldon Mehrer

PRE-SCREENING TECHNOLOGY

- ✘ Identifies enrolled commercial vehicles equipped with specific technology and allows them to bypass weigh and inspection stations or mobile sites.
- ✘ Identifies credentials, weight, etc. on main line roadways at highway speeds.

PRE-SCREENING TECHNOLOGY

- ✘ Automated license plate reader (ALPR)
- ✘ DOT number reader
- ✘ Transponder or mobile device
- ✘ Weigh-in-motion (WIM) and other state systems
- ✘ Feeds information to enforcement personnel

PRE-SCREENING TECHNOLOGY

- ✘ Allows for greater efficiency for trucking companies
- ✘ Cost savings for companies
 - + Maximize fleet-wide fuel economy
 - + Minimize equipment wear and tear

PRE-SCREENING TECHNOLOGY

- ✘ Benefits states and users of our nation's highways.
 - + Reduces congestion around inspection facilities.
 - + Enables state inspection staff to focus efforts on problem carriers demanding the most attention.
 - + The roadways are safer for everyone.

PRE-SCREENING TECHNOLOGY

Enrolled trucks are electronically verified for buy accessing federal and state data bases:

- ✘ Registration.
- ✘ Safety—CSA score.
 - + Driver credentials—Out-of-service orders
 - + Log book, hours of service
 - + Vehicle maintenance
 - + Crash history

PRE-SCREENING TECHNOLOGY

- ✘ Fuel Tax (IFTA)
- ✘ UCR
- ✘ Legal weight, if weigh-in-motion installed
- ✘ Any other state requirement

PRE-SCREENING TECHNOLOGY

- ✘ The Federal Motor Carrier Safety Administration's (FMCSA) "Compliance, Safety, Accountability" (CSA) initiative was established to further reduce commercial motor vehicle (CMV) crashes, fatalities and injuries on our nation's highways.

PRE-SCREENING TECHNOLOGY

- ✘ FMCSA has encouraged states to use electronic clearance.

PRE-SCREENING TECHNOLOGY

States that use prescreening:

- + Nor Pass (SD)
- + Drivewyze (MT, SD, MN)
- + Pre-Pass (MT, MN)

PRE-SCREENING TECHNOLOGY

- ✘ Transponder-based pre-clearance technology
- ✘ Hands-free mobile application
 - + phone
 - + tablet
 - + on-board logging device
- ✘ Verifies safety and credentials of commercial vehicles, pre-qualifying them to bypass inspection facilities.

PRE-SCREENING TECHNOLOGY

Can be used in a variety of locations:

- ✘ Fixed scale sites
- ✘ WIM sites
- ✘ Roadside turnout locations
- ✘ Ports
- ✘ Secondary highways

TRANSPONDER VS. MOBILE DEVICE



Telematics PrePass Transponders



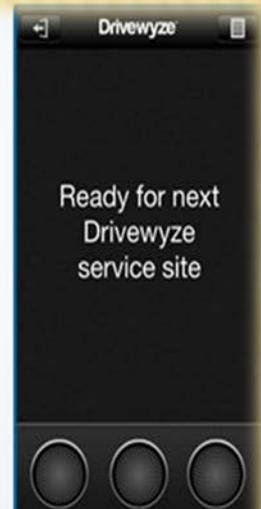
Approaching site



2. Bypass request

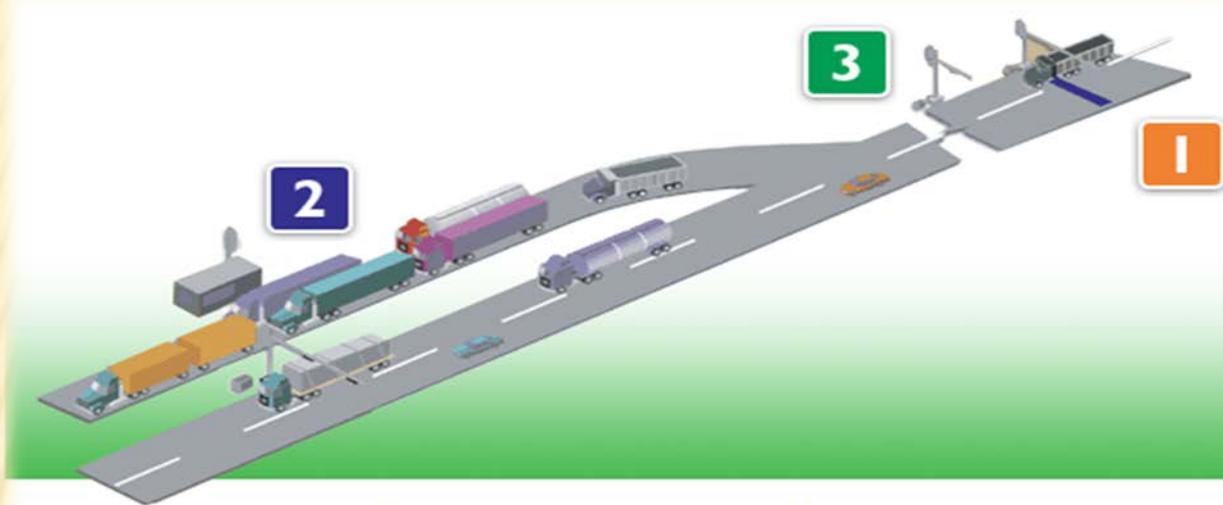


3. Signal received



4. Exiting site

PRE-SCREENING PREPASS AND NORPASS



1

Trucks enrolled in PrePass are assigned small, wireless **transponders** that easily mount onto the vehicles' windshields. As one of these trucks approaches a PrePass-equipped weigh station, an electronic reader on a boom over the road automatically scans the transponder and identifies the vehicle.

2

A secure PrePass computer located inside the scale house accesses the vehicle information associated with the **transponder**, and validates it to ensure compliance with state requirements. At the same time, technologies such as weigh in motion (WIM) scales are often used to verify the truck's configuration and ensure axle and gross vehicle weights are within acceptable limits.

3

Finally, as the truck passes beneath a second boom, a signal indicating whether the vehicle may bypass is transmitted back to the **transponder**. If the vehicle's information cannot be validated, or if it is selected for a random manual inspection, a red light on the transponder alerts the driver to stop. If the vehicle's credentials, safety, and weight are all in order however, a green light tells the driver to go ahead and bypass the facility.

ADDITIONAL INFO

- + Technology is offered at *no cost* to the state
- + Installation and maintenance is at *no cost*
 - × Carrier subscriptions supports these system
- × Systems integration and interface with existing state systems is coordinated by the company.
 - × WIM
 - × DOT data sites
 - × Permitting
 - × Registration
 - × IFTA

ADDITIONAL INFO

- ✘ Training provided by the supplier
- ✘ Reduces truck congestion at weight and inspections sites
- ✘ Increased safety/efficiency for law enforcement and industry
- ✘ Mobile applications available to use this technology at the roadside not only at fixed sites

PRE-PASS EQUIPMENT INSTALLED IN STATE-OWNED VEHICLE



PRE-PASS EQUIPMENT INSTALLED IN STATE-OWNED VEHICLE



MOBILE PRE-SCREENING

- ✘ North Dakota has a “mobile approach”
- ✘ Technology makes us more efficient
- ✘ We could set up at various locations around ND
 - + 9 fixed locations
 - + Multiple turnout locations
 - + 15 WIM locations

CURRENT PRE-PASS CUSTOMERS

- ✘ ND-Based
 - + 78 Carriers - 1,345 Trucks
- ✘ ND Apportioned
 - + 58,011 Accounts - 457,767 Trucks
- ✘ Canadian Carriers
 - + Carriers: 504
 - + Pre-Pass Trucks: 5304
 - + Pre-Pass Plus: 3167

MORE INFORMATION

- × <http://www.norpass.com/NORPASS.aspx>
- × <http://www.prepass.com/Pages/Home.aspx>
- × <http://drivewyze.com/how-it-works/>
- × https://www.youtube.com/watch?v=djg_IgX5V8Y
- × https://www.youtube.com/watch?v=7wGHfHq_Q80

CONTACT INFORMATION

Captain Eldon Mehrer

Motor Carrier Division

North Dakota Highway Patrol

epmehrer@nd.gov

Thank you

Questions?