

Leveraging Vehicle Based Safety Technology to Curb Distracted Driving



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[Videos for PPT\Updated Videos\ETNM56979.dce](#)

[Videos for PPT\Updated Videos\ETRS54654.DCE](#)

Perdue's Private Fleet

- **800 Power Units, 30 Straight Trucks , 2000 Trailers**
- **750 (+) Commercial drivers**
- **600 Non-Commercial vehicles, (Sedans, Pickup, etc.)**
- **VMT, 40 MM Commercial / 14MM Non-Commercial.**

**Our entire commercial fleet has “Vehicle Based Video Technology”.
We also strategically use a host of other vehicle based safety technology.**

Distracted Driving is not necessarily something your driver causes...

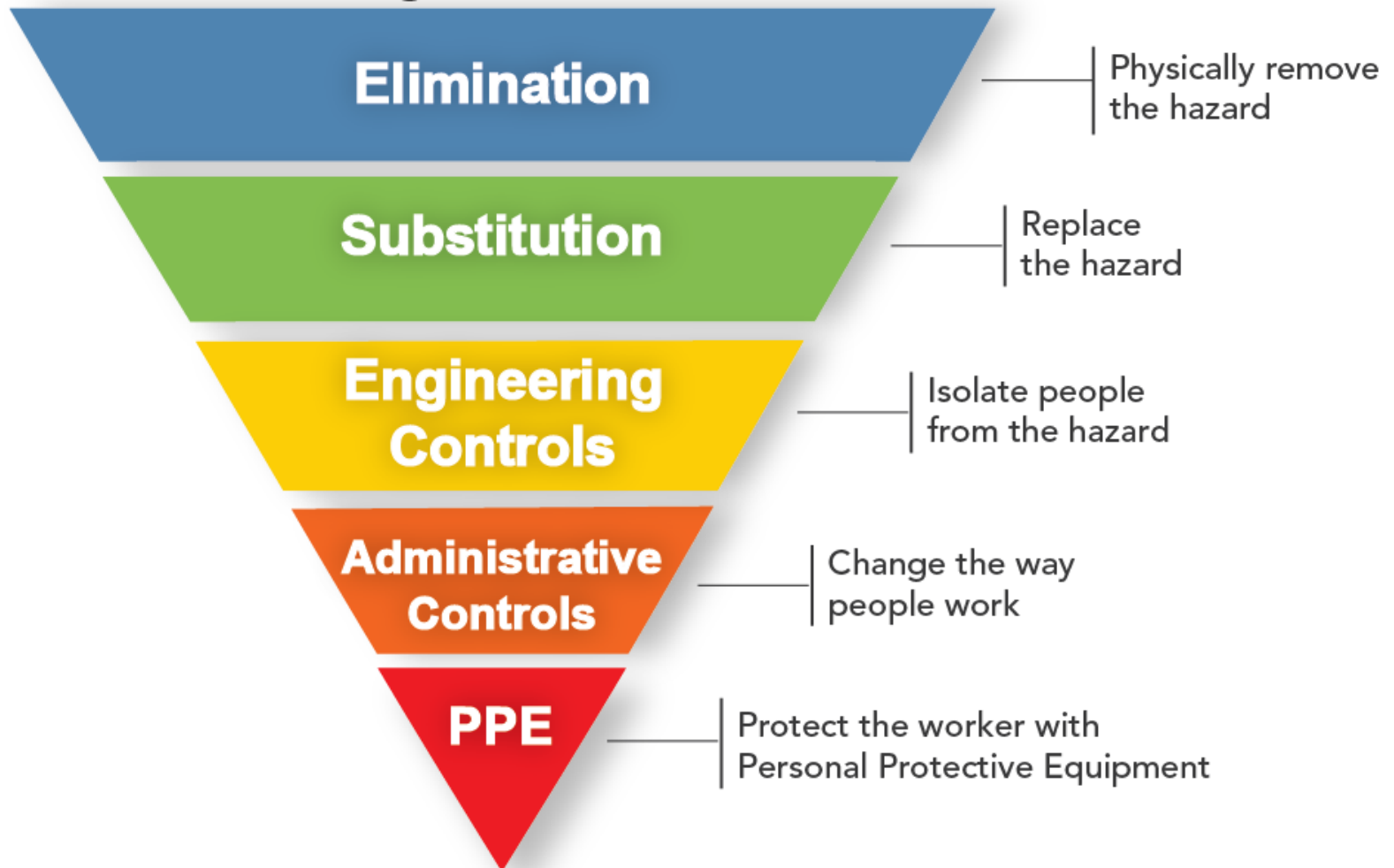
[Videos for PPT\Updated Videos\ETSW73372.DCE](#)

Hierarchy of Controls

Most
effective



Least
effective



Distracted Driving

ELIMINATION

Hierarchy of Controls of Distracted Driving

Fleet Utilization

- Increase Payload (Aluminum Trailer) →
 - FY18 Reduced 647 loads (\$90,500.00)
- State Legislating Agencies
 - Working is the various states increased payload from 84,000 – 90,000 Lbs.
- Equipment Specification
 - Adding the 3rd axle increased payload to 87,000 Lbs.



SUBSTITUTION

- **Change over to “Auto-Shift” trucks**
 - Hands on wheel
 - Less cognitive process
 - Less fatigue
- **Fatigue reducing seats**
 - Lumbar and side support



SUBSTITUTION

Mobile Device Blocking

App goes on the phone



(February, 2019) Deployed onto about 185 company phones and non-commercial vehicles.

- **Cell Blocking Device allows** all Bluetooth calls in and out. Allows voice receiving and dialing. Allows emergency dialing.
- **Cell Blocking Device blocks - when the vehicle is in motion** calls, text-messages, email, apps, etc.,
- Autoreply turned on will send a message that the recipient is driving, and will notify the driver of missed calls, etc.
- Defines driver versus passenger. Blocks driver. Passengers can override the app.

[Videos for PPT\168728 Cell Ph .dce](#)

Hierarchy of Controls of Distracted Driving

Installation Steps / Your device should be labeled with your vehicle number

1 Raise the rearview mirror out of the way



2 Pull the tab



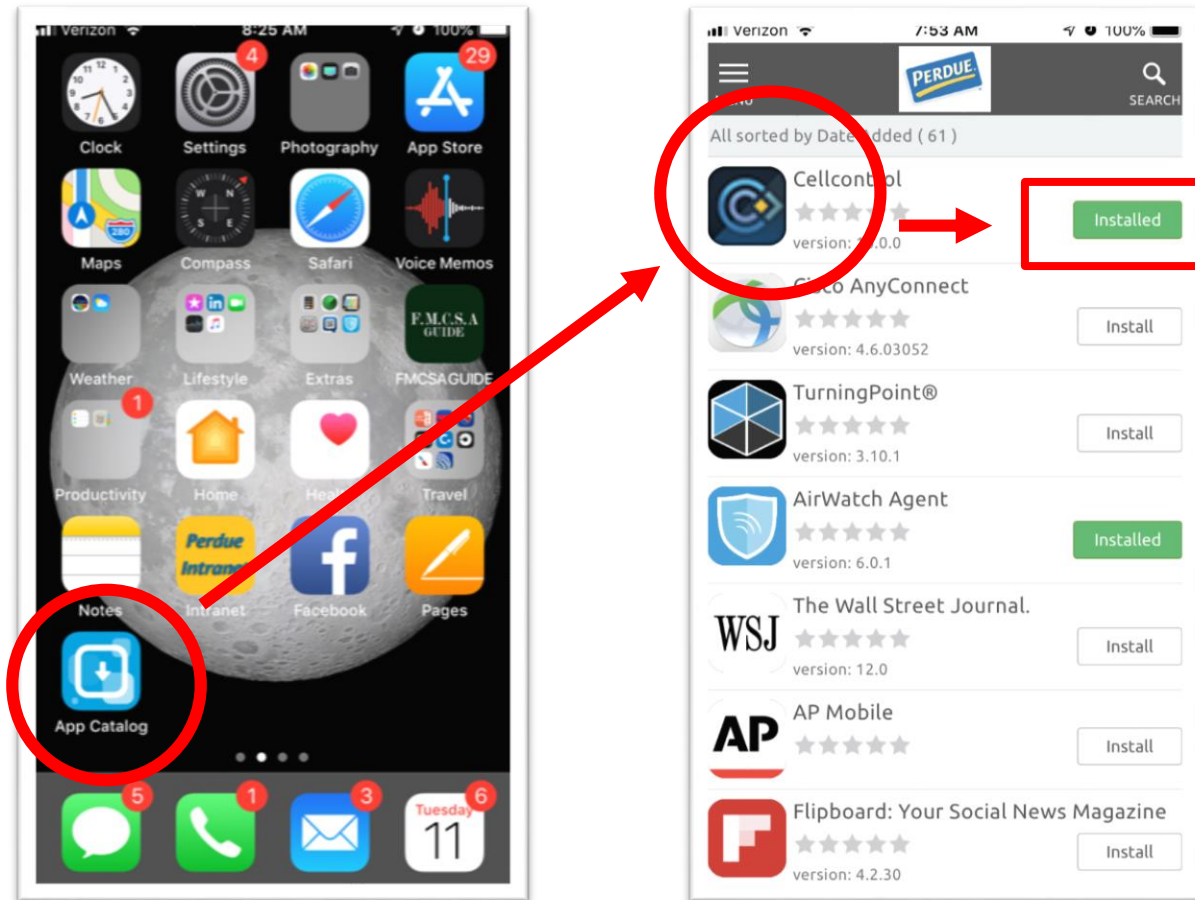
3 Remove red backing



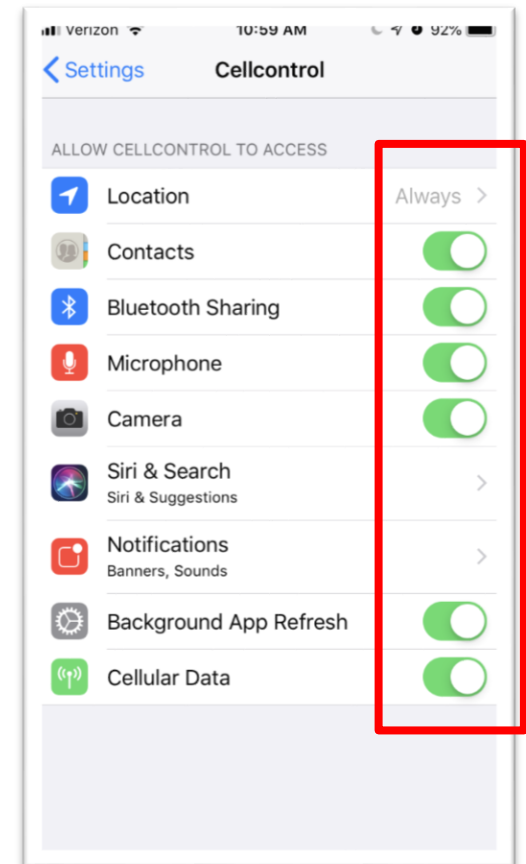
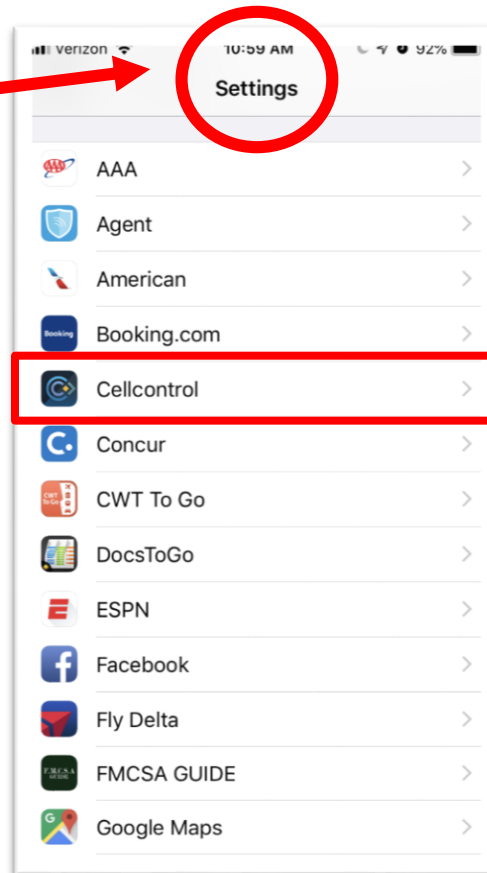
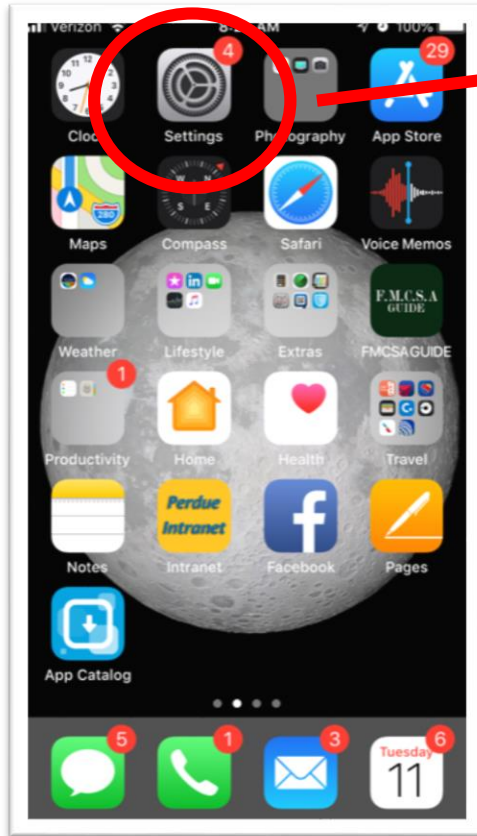
4 **USB port facing down**
Center it under the rearview mount
Press it to the windshield



After the APP is pushed to the phone.... Install the APP



After the APP is installed go to Settings, scroll down until you find “Cell Control” and make sure all is enabled.



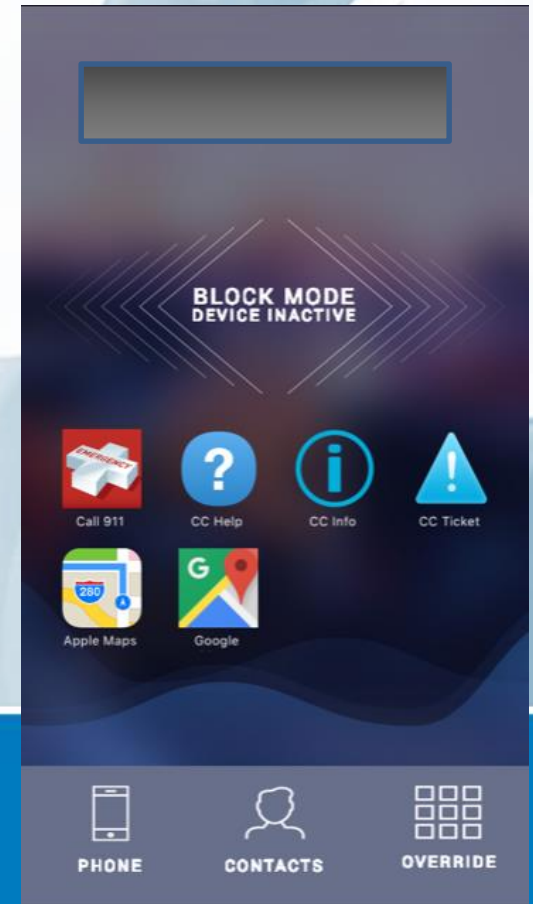
How It Works

When the vehicle is in motion

----- BEFORE -----



Incoming calls, facetime, texts, FB, emails, snapchats, etc.



Engineering Controls

Hierarchy of Controls of Distracted Driving

[Videos for PPT\FDW80375 FWD .dce](#)

[Videos for PPT\ESM90181 FWD Glare.dce](#)

Collision Avoidance

- **Passive and Active (Autonomous) Intervention**
- (FWD Radar; Lane Departure & Blindside)
 - Alert for slower or stopped vehicles ahead
 - See through fog and alert to vehicles ahead
 - See and alert for unintentional lane drift / departure



[Videos for PPT\FDA78734 Lane Depart .dce](#)

Engineering Controls

In-Cab Driver Alerts

- Lane Departure
- Forward Collision
- Blind Side Spotter

Speed Governance / Speed Limiting

- Short haul fleet = 58 MPH
- Over the road fleet = 62 / 65MPH
 - Violators are reduced to 60 for one year.

Vehicle Stability Controls

- Roll stability truck and trailer

Engineering Controls

Hierarchy of Controls of Distracted Driving

Low Center of Gravity Vehicle visibility & lighting



ADMINISTRATIVE CONTROLS

Distracted Driving Policy

Coach the Experienced Driver (Video)

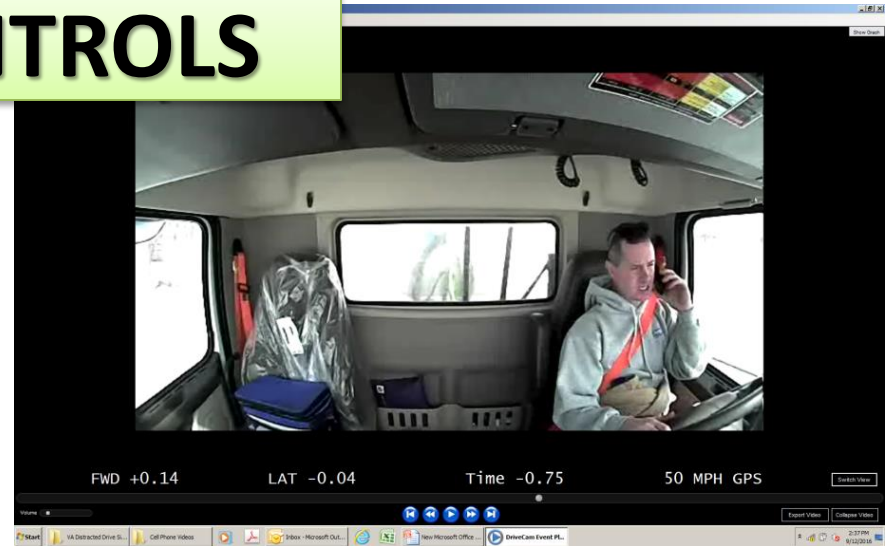
Defensive Driver Coaching / Training

Driver Meetings

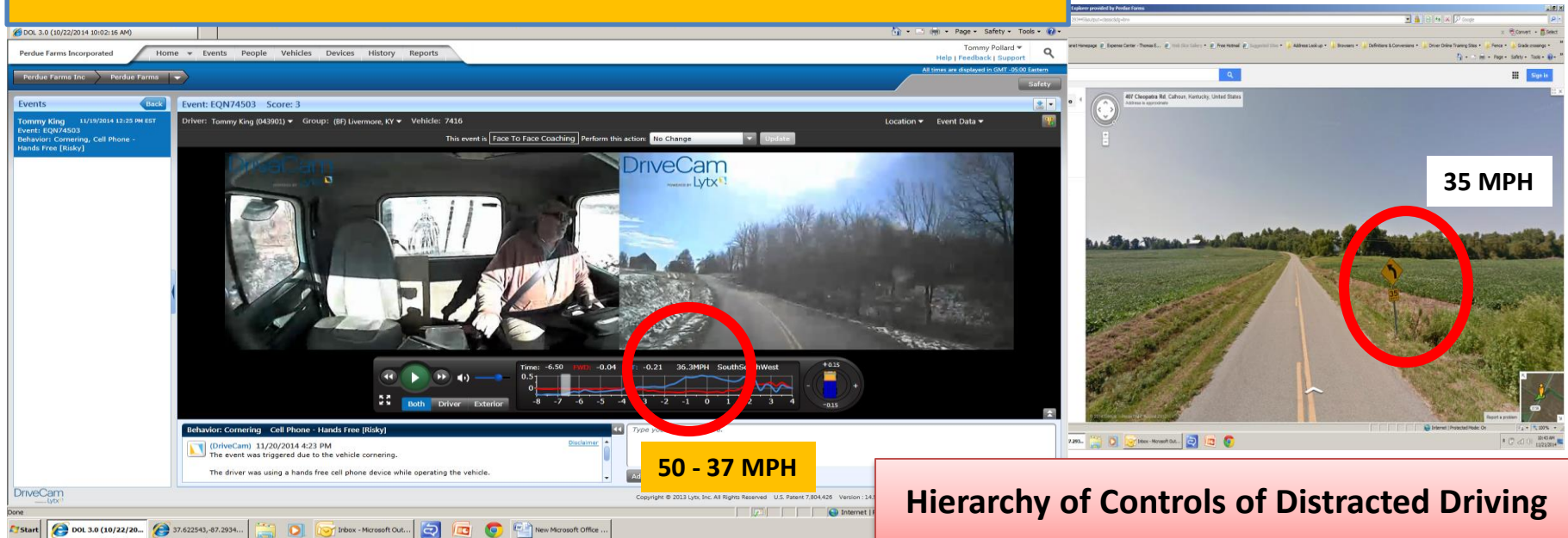
Media Releases/Newsletters

Trained - Driver Trainers & Examiners

Policies & SOPs to include driver accountabilities



Cornering Policy – 10 MPH Below the Advanced Warning



Hierarchy of Controls of Distracted Driving

PPE

Proximity Controls

- Less or no “Reaching”.

Seat Belts

- Creating the “Visual Standard”
- Seat Belt Chimes

Blue Tooth Technology (OEM Installed)

- Hands Free noise cancelling

Active / Passive autonomous intervention

- Adaptive cruise control
- Active visual and audible alerts

[Videos for PPT\FDF03695 Active FWD .dce](#)

Vehicle Based Video - Protect Driver and Company

- Frivolous actions

[Videos for PPT\EZF18314 ACC Intersect .dce](#)

Hierarchy of Controls of Distracted Driving





Vehicle Based Behavioral Safety



Distracted Driving Vehicle Based Safety Systems

- **Know what you want to achieve.....**

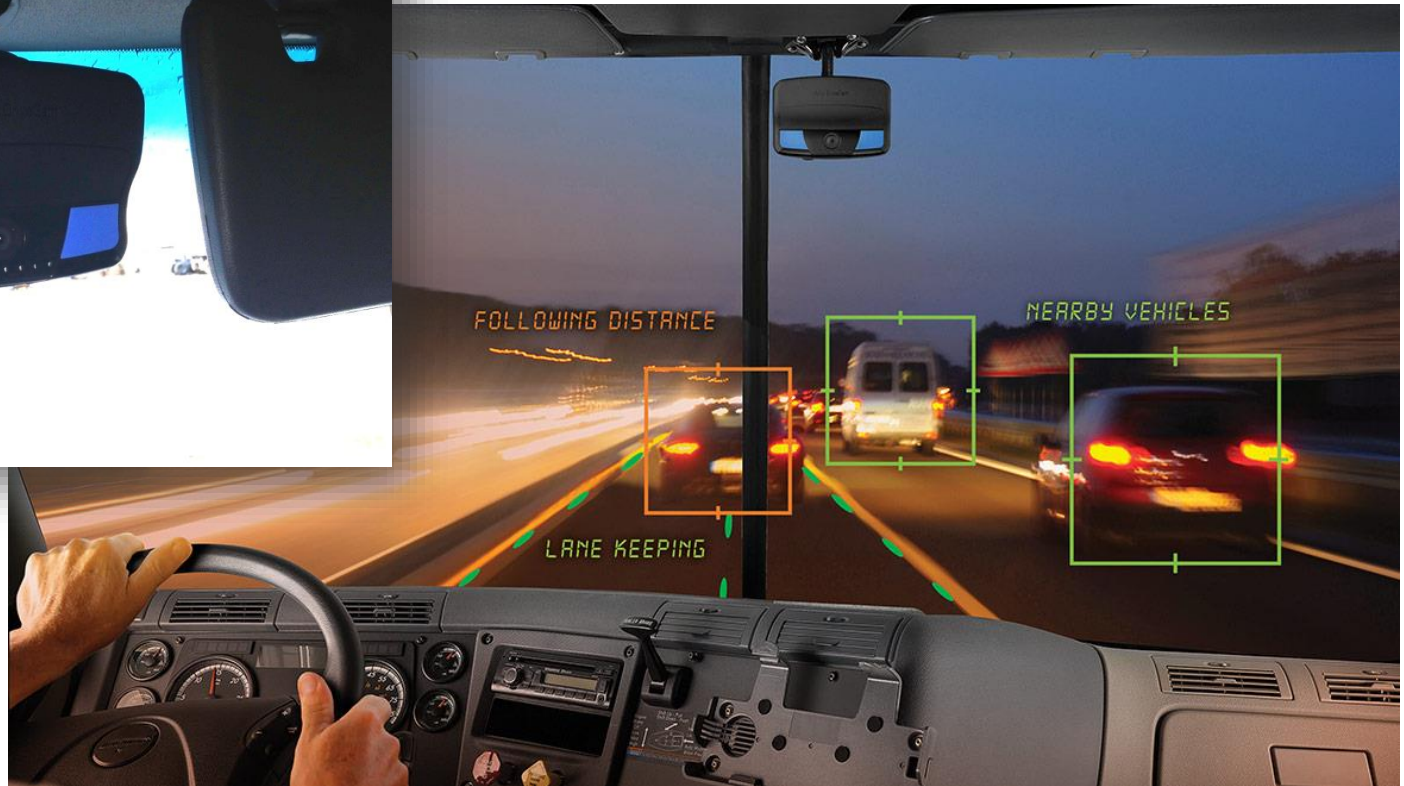
- Driver Behavior management?
- Maintain compliance with changing rules & regs?
- Reduce accidents and risk exposure to litigation?
- Action based improvement required by insurance?
- Reduce the cost of accidents?
- Driver acceptance to add technology



Active Alert to the Driver

Report to Manager / Coach

Document for Protection & Training



"Machine Vision"

Trigger Type: Following Distance

If after 4 seconds the brake has not been applied and one of the following conditions occur;

Following Distance = (vehicle speed is over 25 MPH and following distance is under 1.5 Seconds and not increasing)

Critical Distance = (vehicle speed is over 25 MPH and following distance is under 0.7 Seconds)

Action: Notification for coaching occurs

Less than 1 second Speed = Any time **Less than 2 seconds** Speed = 35 to 50

Less than 3 seconds Speed = 50 to 65 **Less than 4 seconds** Speed = 65 or Greater

Trigger Type: Rolling Stop

Under 5 MPH is an incomplete stop Over 5 MPH is a fail to stop

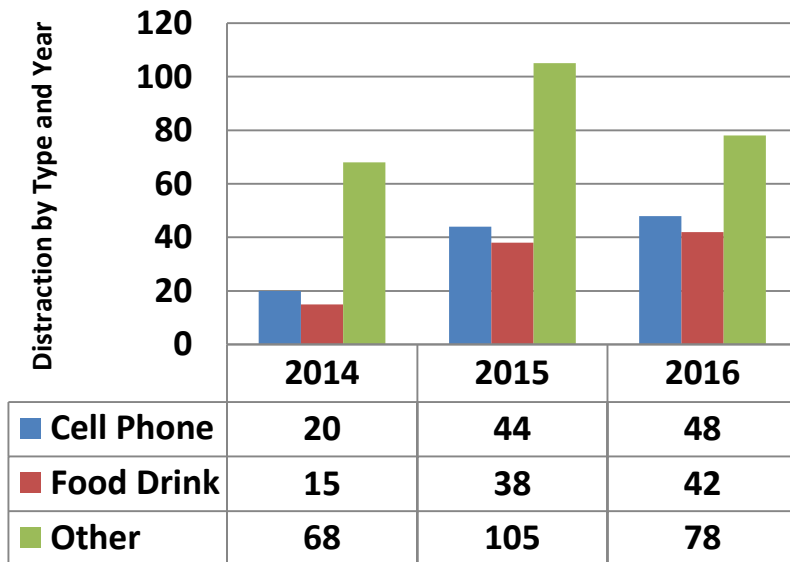
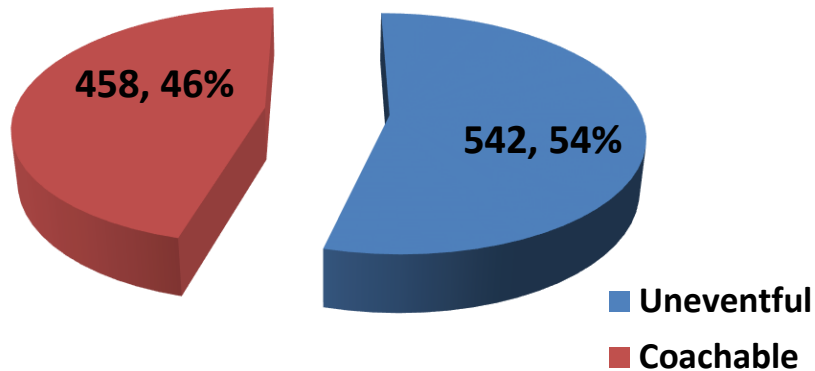
Action: Fail to Stop is sent for coaching. Incomplete Stop is resolved unless another behavior is seen during the review. **Resolved**

Lane Keeping / Lane Departure

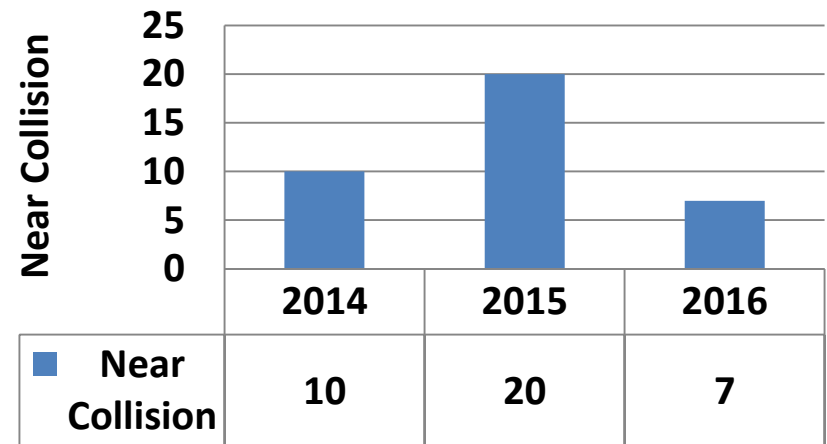
Minimum speed 40 MPH = Audio Alert to Driver when tires touch lane marker. (Note, must have a visible lane marker) If this is repeated twice within a 10 minute period = it is sent for coaching.

Does it give you the data you need?

Total Distractive Activity 2014 - 2016



Near Collision From a Distracting Event by Year



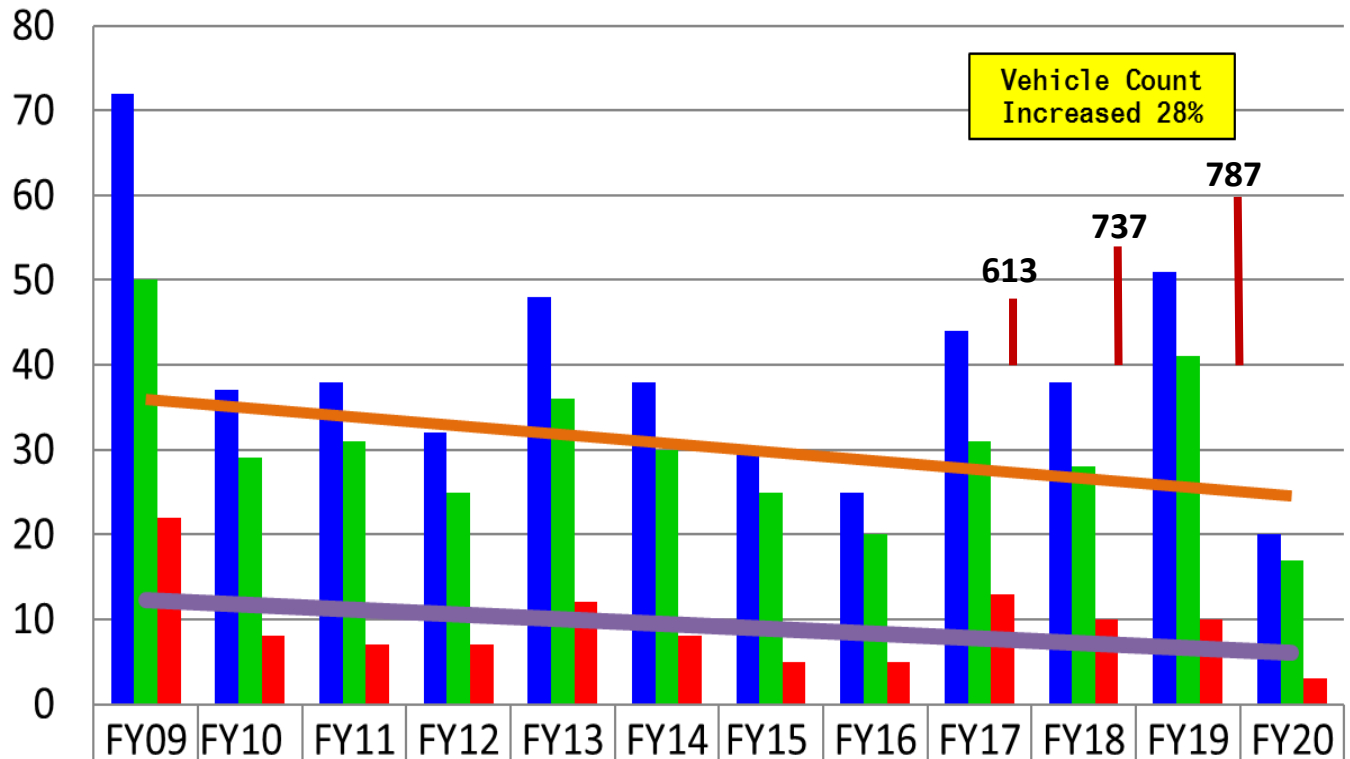
Action Items

- ✓ Increase accountability for Cell Phone (24%)
- ✓ Focus on drivers who repeat behaviors (13%)
- ✓ Near Collision IRB Review (required)

Does it Add Value?

Commercial Highway Crashes

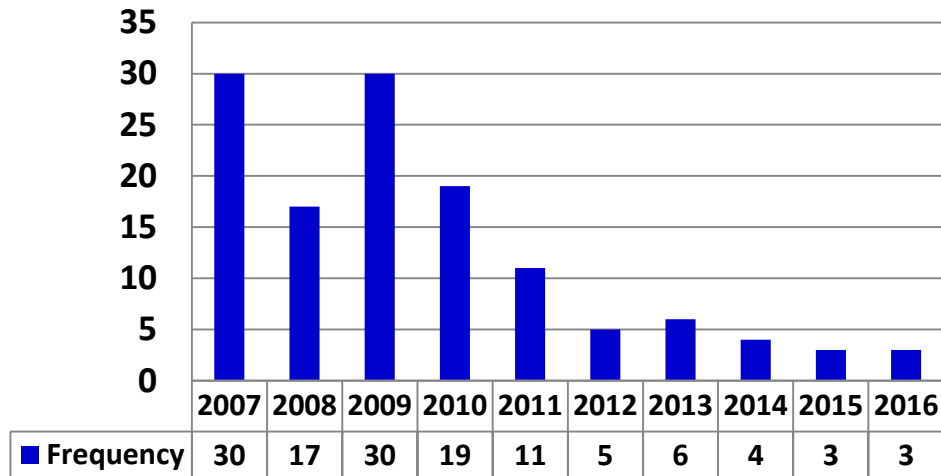
Total Highway Cases by Class, Commercial vs, Non-Commercial)



■ Chargeable Highway
 ■ Chargeable Highway Commercial
 ■ Chargeable Highway Non-Commercial

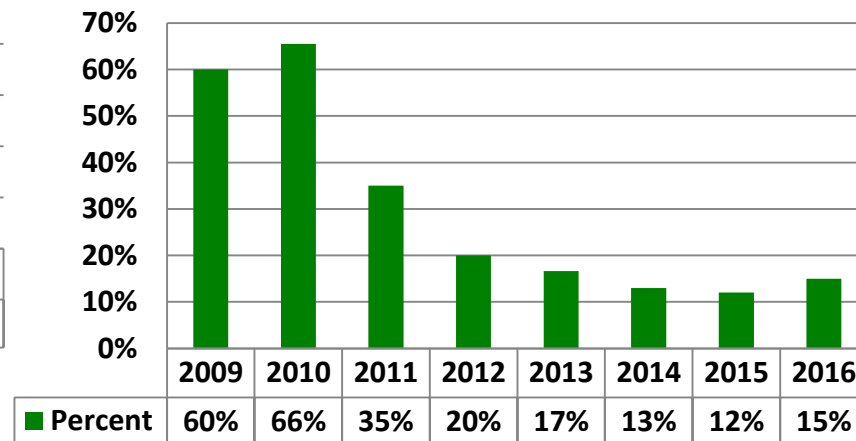
FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
72	37	38	32	48	38	30	25	44	38	51	20
50	29	31	25	36	30	25	20	31	28	41	17
22	8	7	7	12	8	5	5	13	10	10	3

Crashes Arising From Distracted Driving 10 Year Trend (CMV)



Does it make sense?

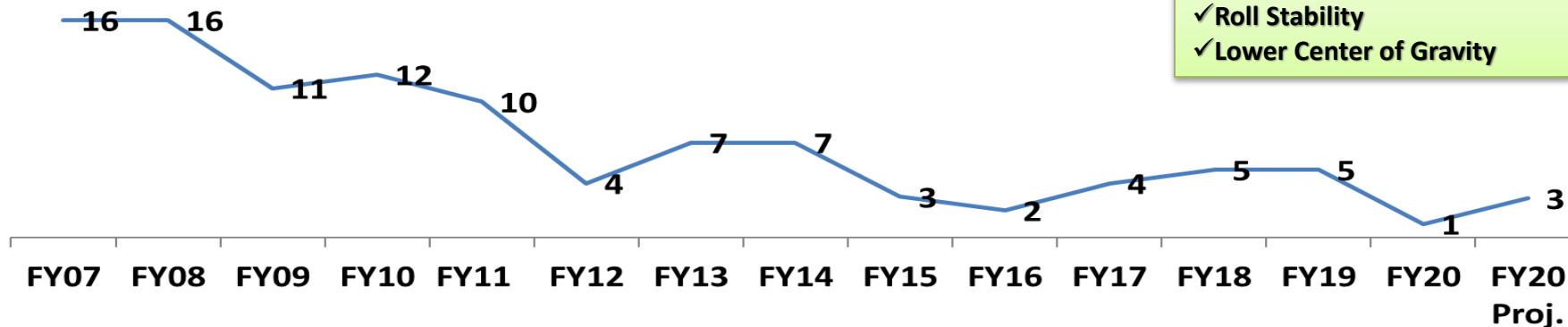
Percent of Total Crashes Attributed to Distracted Behavior (CMV)



Does it reduce management time?

Total Rollover - 97 (FY07 - FY18 YTD)

Single Vehicle "Roll Over" Reduction.



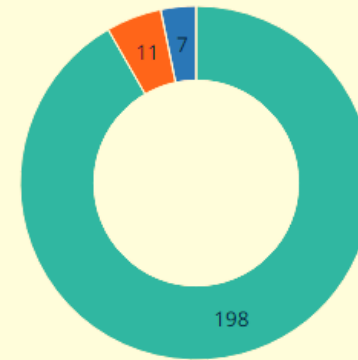
Does it Work?

Non-Commercial Drivers
Company Cell Phones
Company Assigned Vehicles



DEVICE UTILIZATION - THIS MONTH

SEEN WITHIN MONTH NOT SEEN WITHIN MONTH NEVER SEEN



Managed Hours
96,523



Blocked Calls
1,996



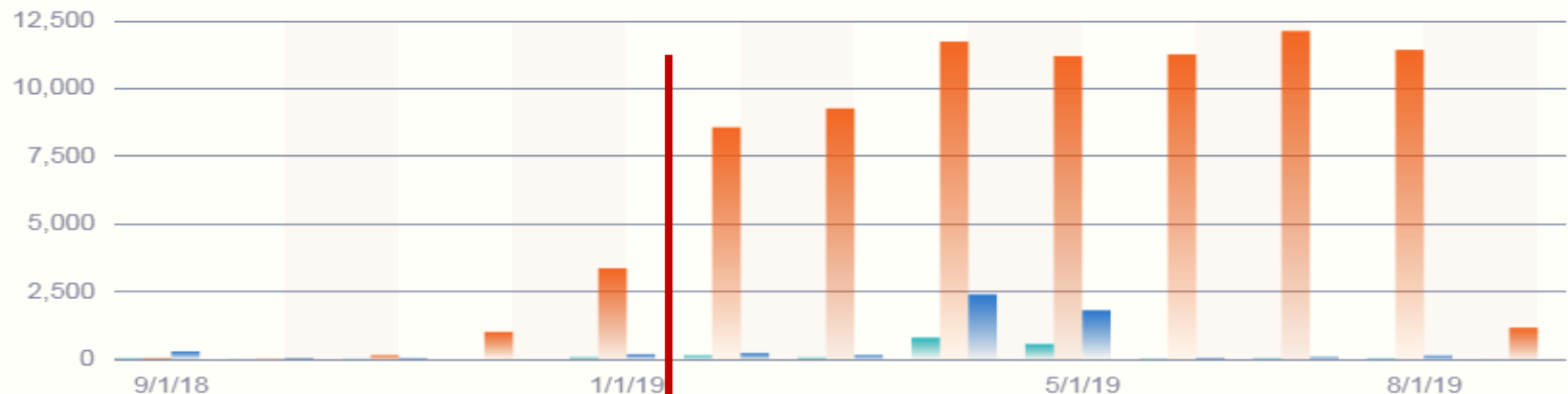
Blocked SMS
81,829



Blocked Apps
7,626

MONTHLY BLOCKED ACTIVITY

BLOCKED CALLS BLOCKED SMS BLOCKED APPS



Began Install February 2019

Adding Value to your, **“Case Management Process”**

Vehicle Mounted Camera Process

Eliminate the guess work. Previously we spent over 80% of our energy reaching agreement on what happened, and the remaining 20% on preventing re-occurrence.

Now we see what happened and we get closure very quickly. Now we spend most all of our time on preventing re-occurrence.

Create a level platform:

By paralleling the “Truck Camera ” process with **Defensive Driving education**, we eliminate the barrier between the Transportation Supervisor and driver.

Coach, using defensive driving strategies

Coaches and drivers now use the common language of DDC.

Coaches and drivers alike learn by engaging in the process.

Lessons Learned

No matter what technology you choose consider the following;

Train managers so they deliver effective coaching. (Annual Refresher).
(Coach to Defensive Driving)

Don't get stale (revitalize) Add to your deliverables and find continuous ways to improve. Check and keep process integrity.

Seek “Continuous Improvement” on deliverables. Every couple years compare the process and service.

Networking with industry. (NPTC, ATA, ASSE, MATS, Etc.)

Create “Visual Standards” to associates and motoring public alike.

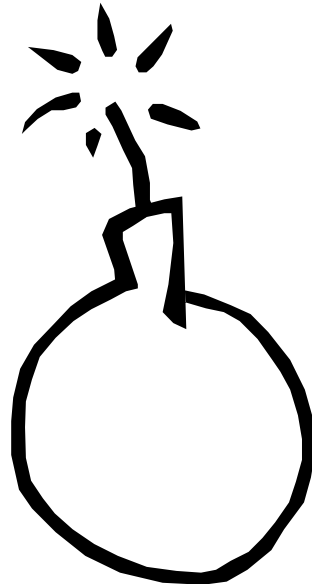
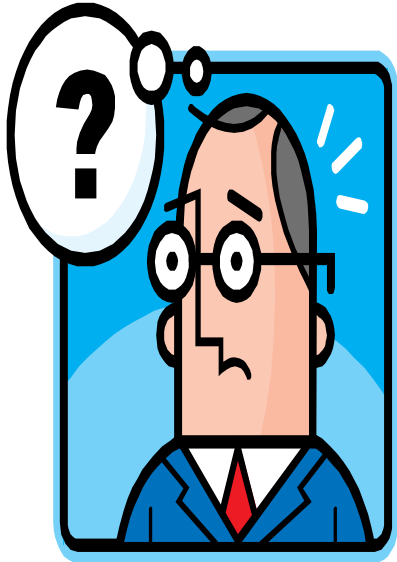
Use a “PIP” (Performance Improvement Process) to improve driver behavior. Avoid the negative impact of “Discipline”

Focus “Behavioral Management” on “Repeated Behaviors”

Active Participation in National and Local Associations & Agencies, Conferences, Webinars, Industry Networking, Trade Shows and Local Events.

- **ASSP (American Society of Safety Professionals)**
- **NPTC (National Private Truck Council)**
- **FMCSA , webinars, rulemaking correspondence, etc**
- **State Highway Police and Commercial Truck Enforcement Agencies**
 - Invite enforcement officers to speak at your driver meetings
 - Leverage them as a resource for solutions during disaster events
 - Call on them about compliance.... How the laws are enforced
- **State Trucking Associations**
- **State Highway Associations, participate in meetings and events**
- **Operation Lifesaver (Rail Grade Safety)**
- **Use of College and Technical Schools for training, recruitment and leadership**
- **Follow the trade journals, CCJ, HDT, Transport Topics, etc.**
- **Trade Shows, Mid America Truck Show, etc.**
- **Get Certified... Programs available through, NATMI, NPTC, ASSE, OLI, etc.**

Questions,,, &@\$&@\$Q@&^



Thank you for your time.