



***Applying Technology to
Compliance &
Safety Performance***

www.BoyleTransport.com

Trucking safety dynamics

On-board safety systems

Management tools

Capacity impact

CSA

- Drivers & fleets more accountable
- Transparent scoring
- Exacerbates driver shortage

2-4%

Hours of service

- New rules July 2013
- 2 consecutive nights off
- 30 minute rest in first 8 hrs.

2-4%

Electronic logs

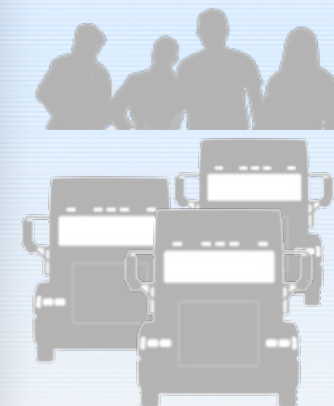
- Elimination of falsified hours
- Rule due in 2013, effective 2016

4-6%

Equipment

- EPA 2010 emission standards
- Huge increases to carrier costs
- Financial Darwinism

2-4%

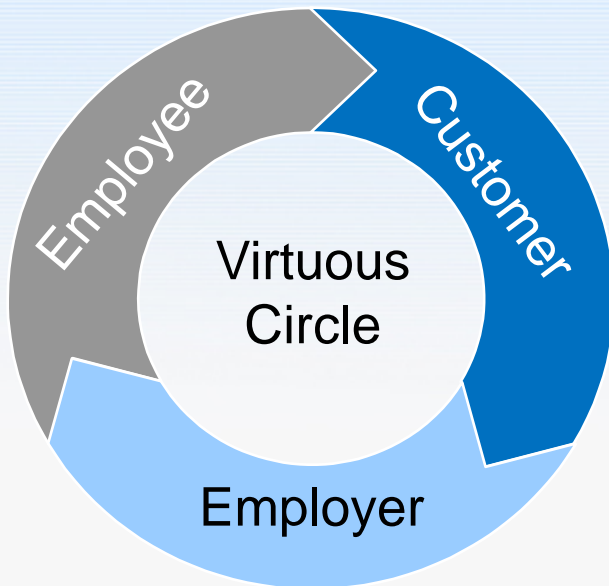


Productivity



Costs





- ✓ Attract people who value safety
- ✓ Establish high integrity work environment
- ✓ Align our incentives with customer's
- ✓ Ensure strict qualifications & training
- ✓ Invest in equipment & technology
- ✓ Factor performance data into pay

| | Unsafe Driving | Hours of Service Compliance | Driver Fitness | Drug & Alcohol | Vehicle Maintenance |
|-----------------------------|-----------------------|------------------------------------|-----------------------|---------------------------|----------------------------|
| Boyle Transportation | 5.9% | <3 violations | 0.0% | 0.0% | 2.9% |

Source: US Department of Transportation (<http://ai.fmcsa.dot.gov/sms/>) October, 2013

Trucking safety dynamics

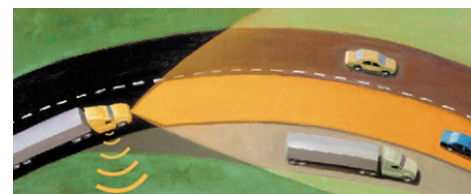
On-board safety systems

Management tools

MITIGATING RISKS OVER THE ROAD

Collision avoidance system

Radar system ensures adequate stopping distance. Adaptive cruise.



Electronic stability control

Sensors help prevent rollovers



Lane departure warning

Camera alerts driver of drifting over lane markers



Side-angle camera

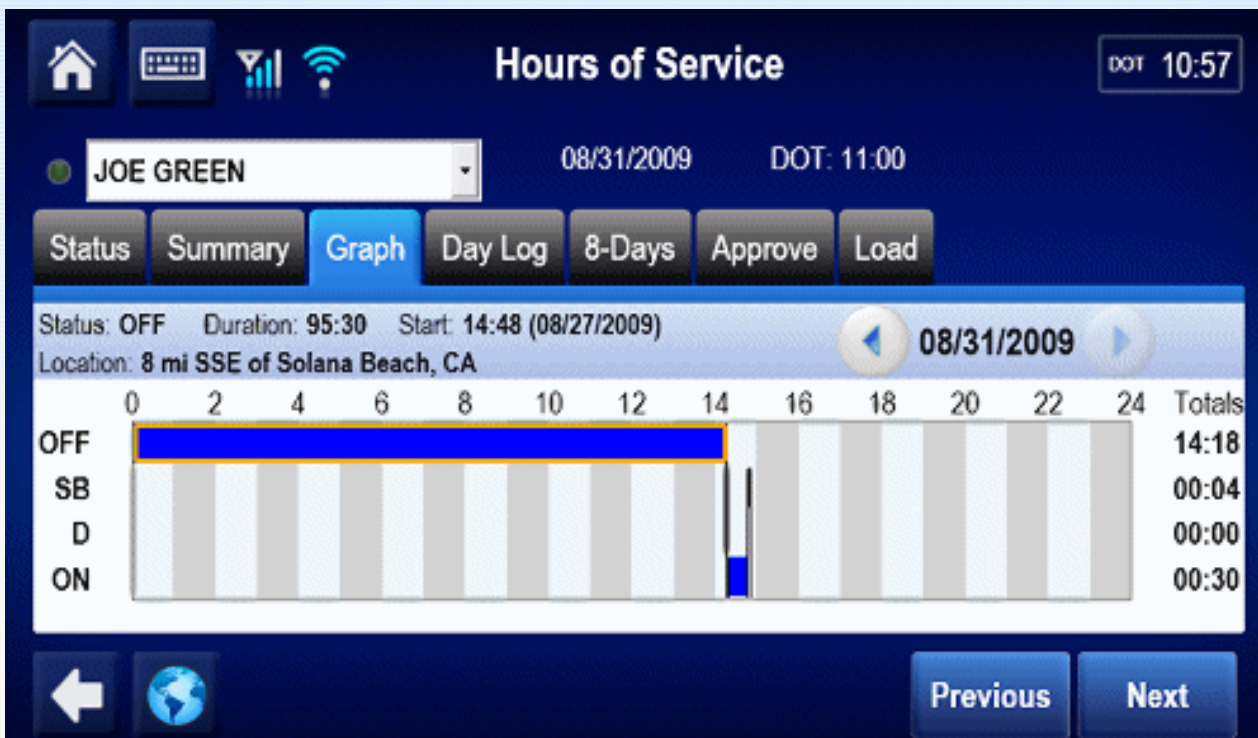
Video camera enhances visibility and eliminates "blind spot"



E-LOGS TO BECOME MANDATORY PER "MAP 21" LAW

“20-30% of truck drivers falsify their logs.”

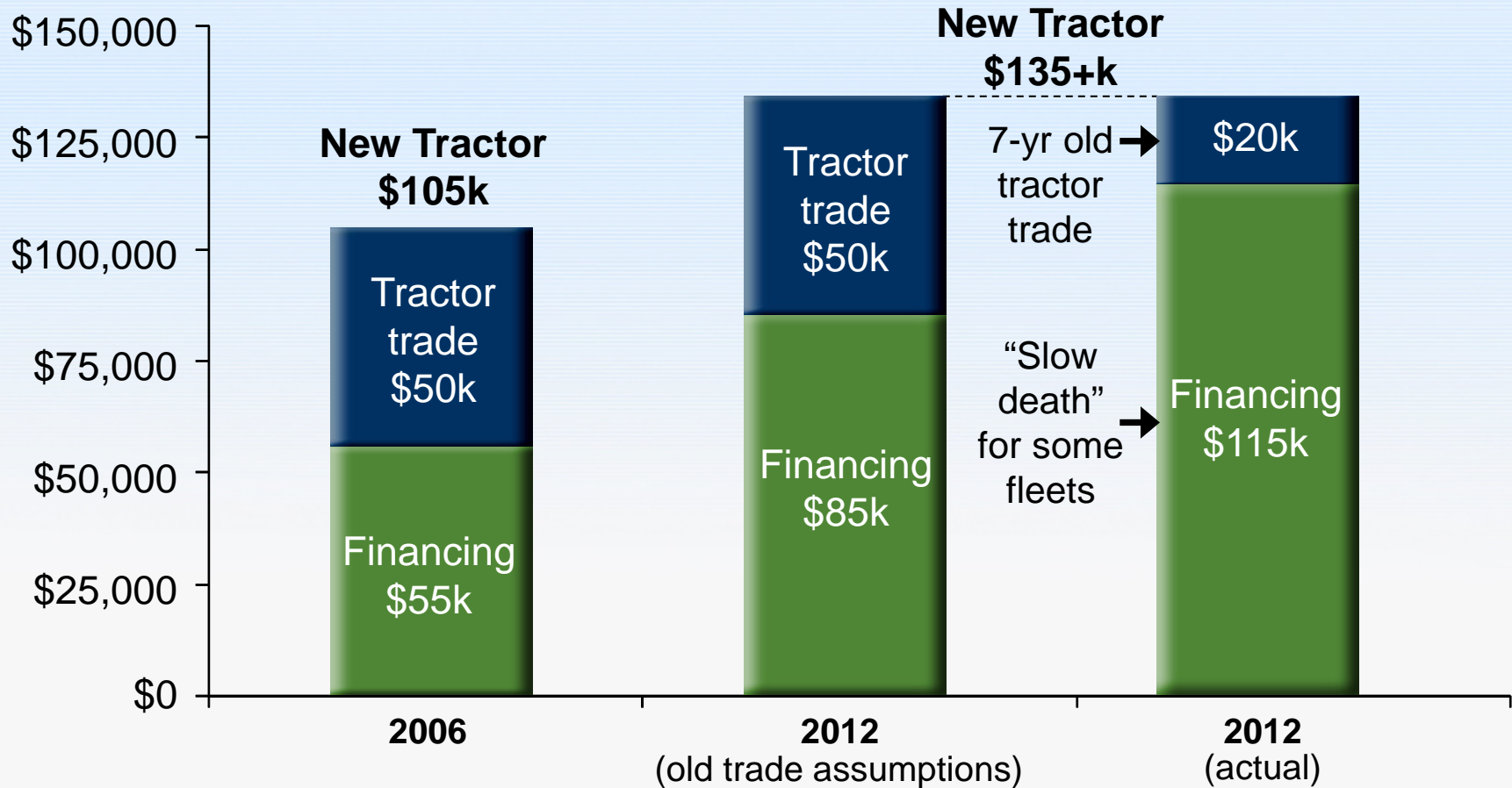
Stifel Nicolaus research



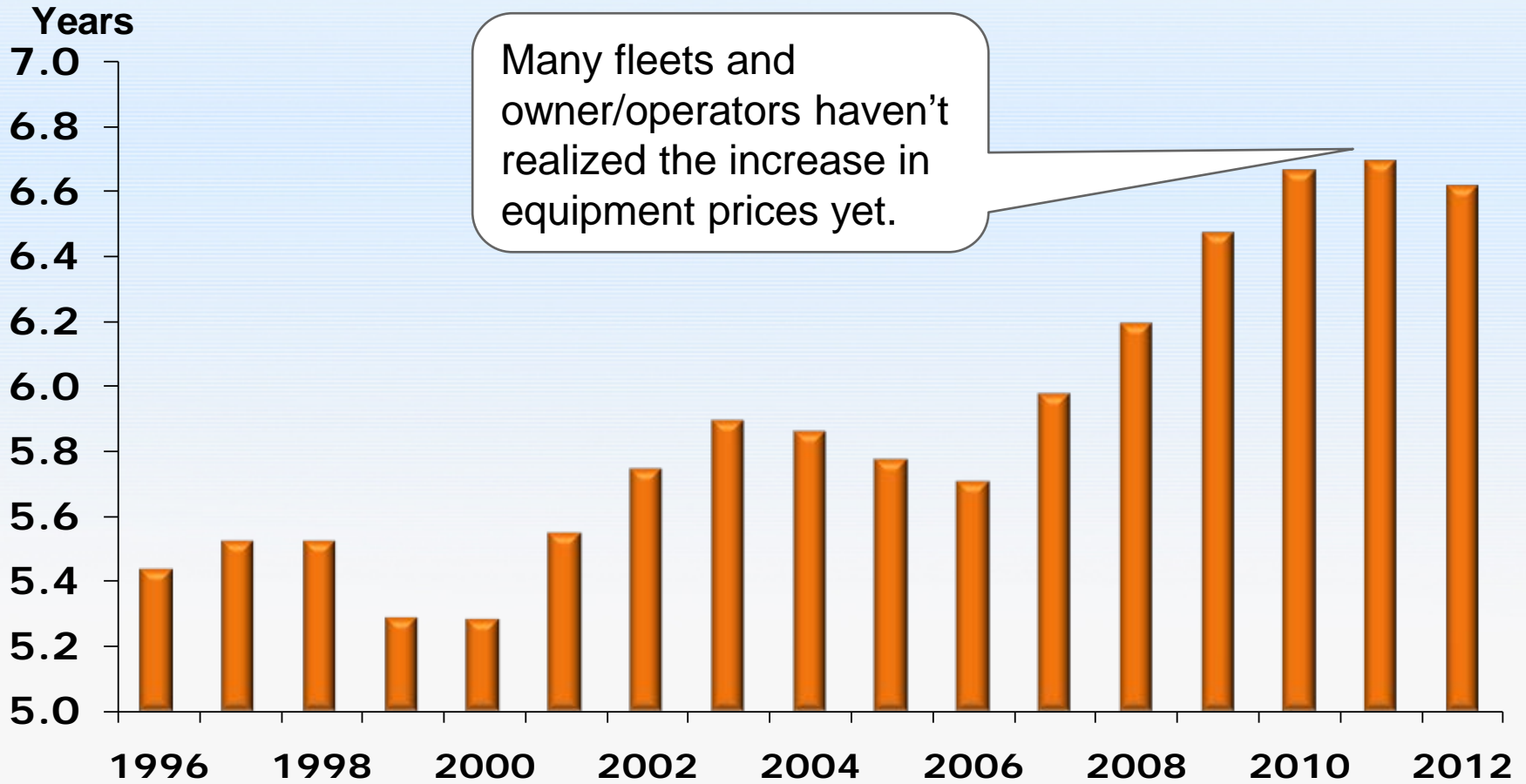
Endorsed by ATA,
opposed by
Owner-Operator
Group

- Results**
- Level playing field
 - Improve compliance
 - Recruiting benefit
 - Ease paper burden

Class 8 Tractor Replacement Costs: Examples



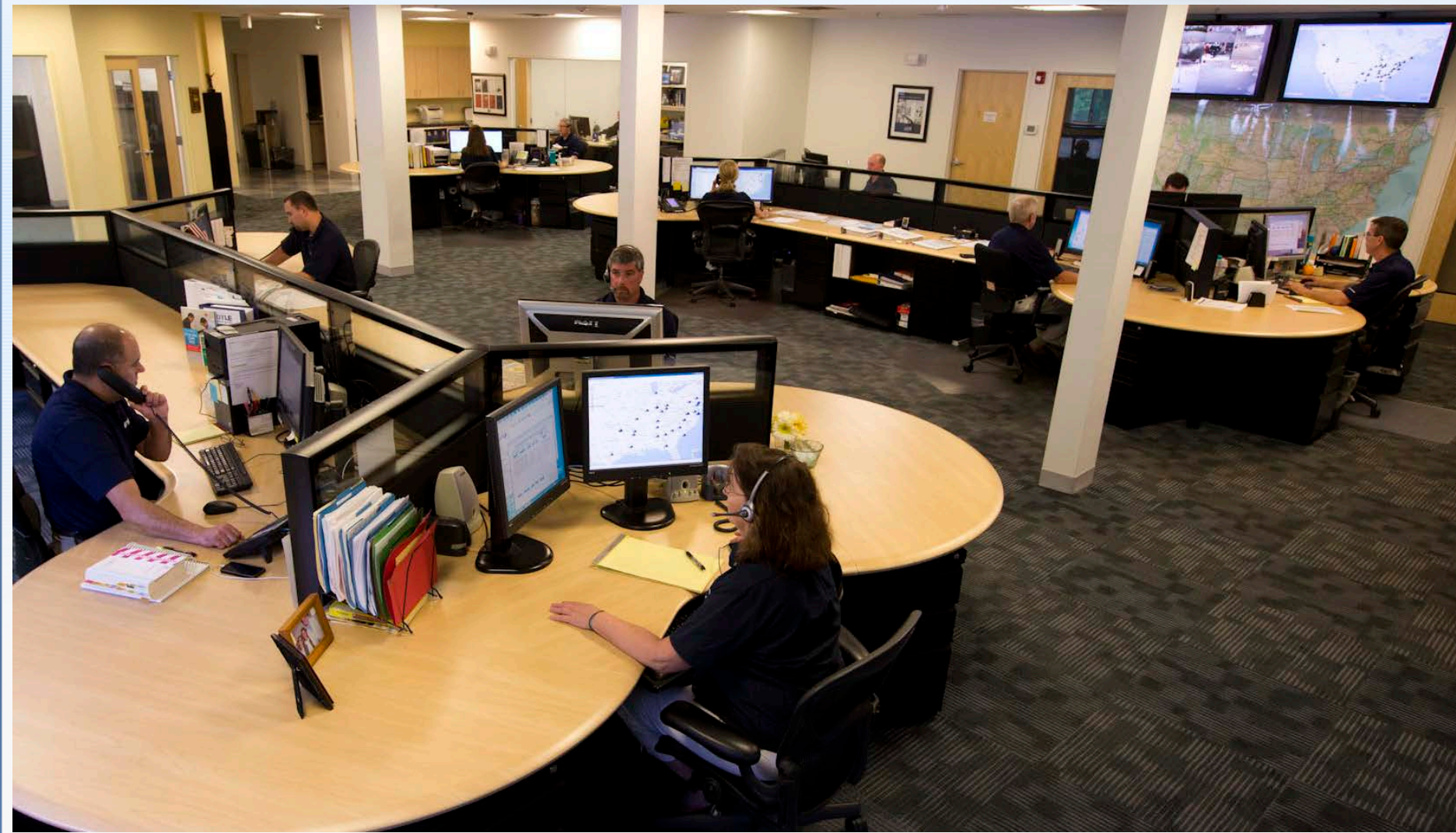
AVERAGE AGE OF U.S. CLASS 8 TRUCKS



Trucking safety dynamics

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Management tools



2 way communication

“What’s your status?”
“Getting loaded”

42.0464° N,
87.6947° W
0.3 miles NE of
Evanston, IL

- Location
- Text messaging

Enhanced visibility



- Shipment tracking
- Asset utilization

Real time, actionable information



- Integrated apps
- Customer solutions
- Fleet management
- Safety performance
- Compliance monitoring

2 way communication



- Location
- Text messaging

Location visibility
























- Shipment tracking
- Asset utilization

Real time, actionable information



- Integrated apps
- Customer solutions
- Fleet management
- Safety performance
- Compliance monitoring

HOURS OF SERVICE OVERVIEW

| Duty Status | Driver Name ▲ | Driver ID | Rule set | Available Driving | Driving Hours | On Duty Hours | Next Break |
|--|-------------------|-----------|---|-------------------|---------------|---------------|------------|
|  Sleeper Berth | Allen, Kris | 03648 |  | 8h00 | 11h00 | 14h00 | 8h00 |
|  Off Duty | Allen, Tracie | 03647 |  | 8h00 | 10h15 | 10h54 | 8h00 |
|  Sleeper Berth | Athey, William | 03727 |  | 8h00 | 11h00 | 14h00 | 8h00 |
|  Off Duty | Bolam, John | 03491 |  | 8h00 | 11h00 | 14h00 | 8h00 |
|  Sleeper Berth | Brewer, Bonnie | 03679 |  | -1h26 | 3h38 | -1h26 | 8h00 |
|  Driving | Butler, Harvey | 03705 |  | 5h58 | 9h49 | 11h58 | 5h58 |
|  Driving | Byers, Clarence | 03722 |  | 5h10 | 5h10 | 6h12 | 7h30 |
|  Sleeper Berth | Carpenter, Elaine | 03567 |  | 8h00 | 11h00 | 14h00 | 8h00 |
|  Driving | Carpenter, Ken | 03566 |  | 2h16 | 2h16 | 3h27 | |
|  Driving | Cochran, Doug | 03641 |  | 6h56 | 8h06 | 6h56 | |
|  Sleeper Berth | Cochran, Loretta | 03640 |  | -1h39 | 3h45 | -1h39 | |

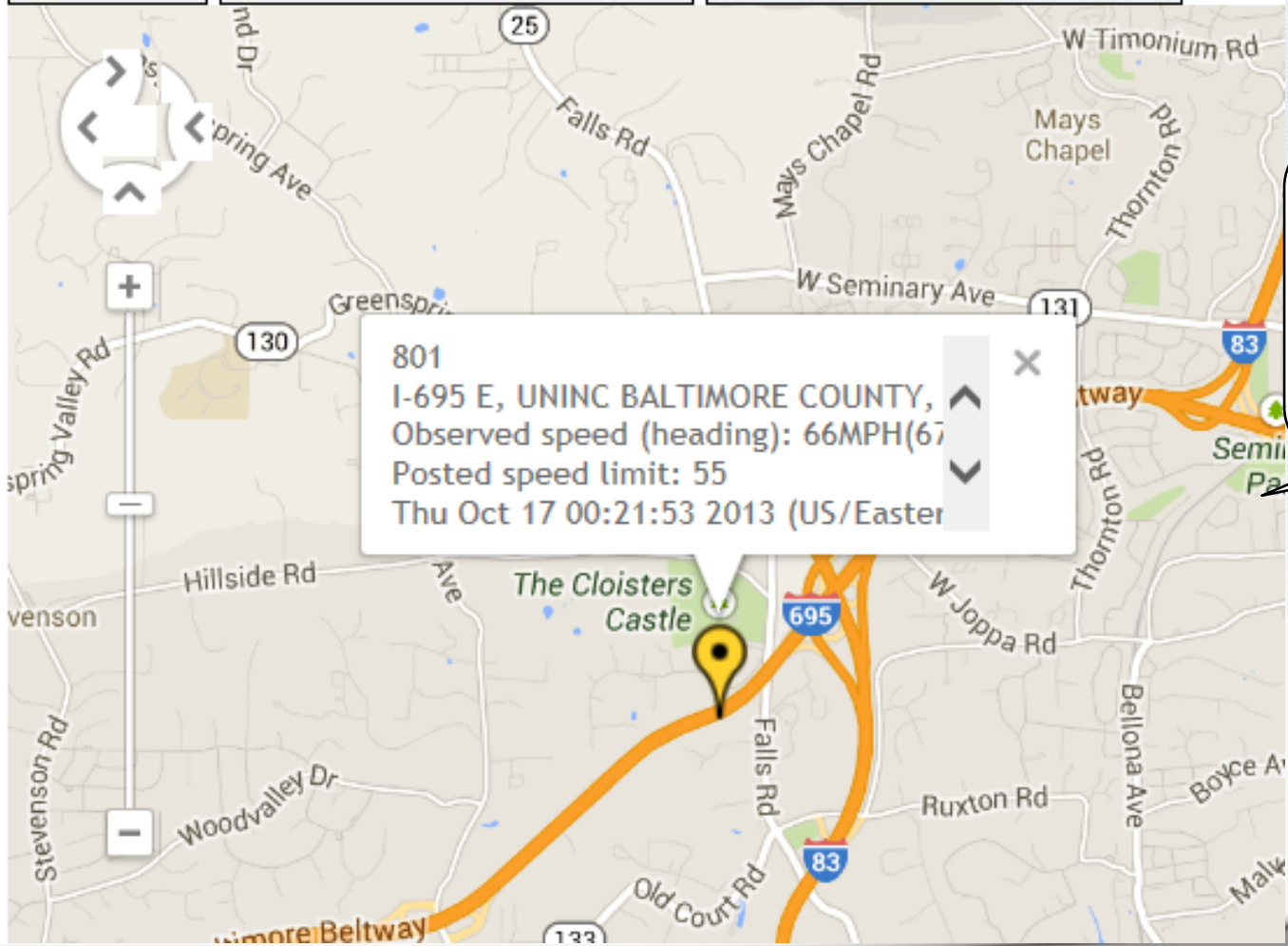
Benefits
Compliance
&
Operations

OVERNIGHT SPEEDING REPORT

| Vehicle | Time | Location | Speed Limit | Actual Speed |
|----------------|--------------------------|--|--------------------|---------------------|
| 801 | Thu Oct 17 00:21:53 2013 | <u>I-695 E, UNINC BALTIMORE COUNTY, MD</u> | 55 | 66 |
| 801 | Thu Oct 17 07:42:46 2013 | <u>I-95 N, WATERFORD, TOWN OF, CT</u> | 55 | 66 |
| 972 | Thu Oct 17 06:44:44 2013 | <u>I-78 / US-22 E, GREENWICH TWP, PA</u> | 55 | 66 |
| 972 | Thu Oct 17 14:08:00 2013 | <u>I-78 / PA-309 W, SALISBURY TWP, PA</u> | 55 | 67 |
| 972 | Thu Oct 17 14:26:56 2013 | <u>I-78 / US-22 W, GREENWICH TWP, PA</u> | 55 | 66 |
| 967 | Thu Oct 17 04:33:30 2013 | <u>I-90 W, SUMMIT TWP, PA</u> | 55 | 66 |
| 967 | Thu Oct 17 21:53:42 2013 | <u>IN-162, UNINC DUBOIS COUNTY, IN</u> | 55 | 65 |
| 967 | Thu Oct 17 22:28:35 2013 | <u>US-231 / IN-45, UNINC MARTIN COUNTY, IN</u> | 55 | 65 |
| 967 | Thu Oct 17 22:43:28 2013 | <u>US-231 / IN-45, UNINC MARTIN COUNTY, IN</u> | 55 | 65 |
| 971 | Thu Oct 17 12:07:55 2013 | <u>US-331 / AL-9, UNINC COVINGTON COUNTY, AL</u> | 55 | 65 |

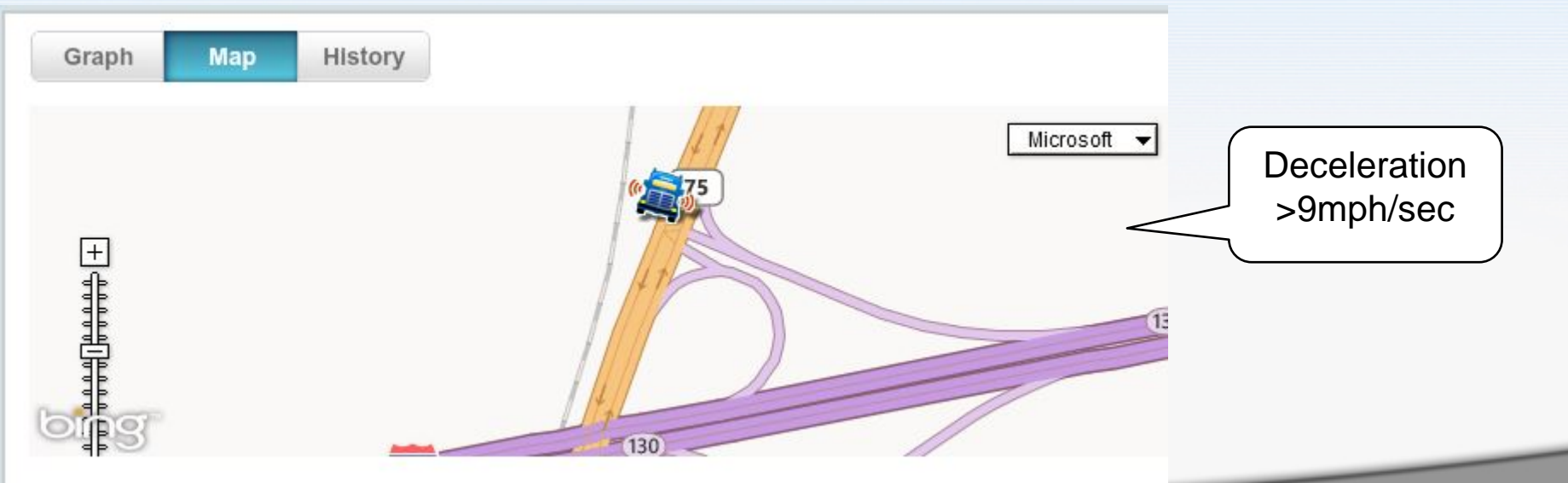
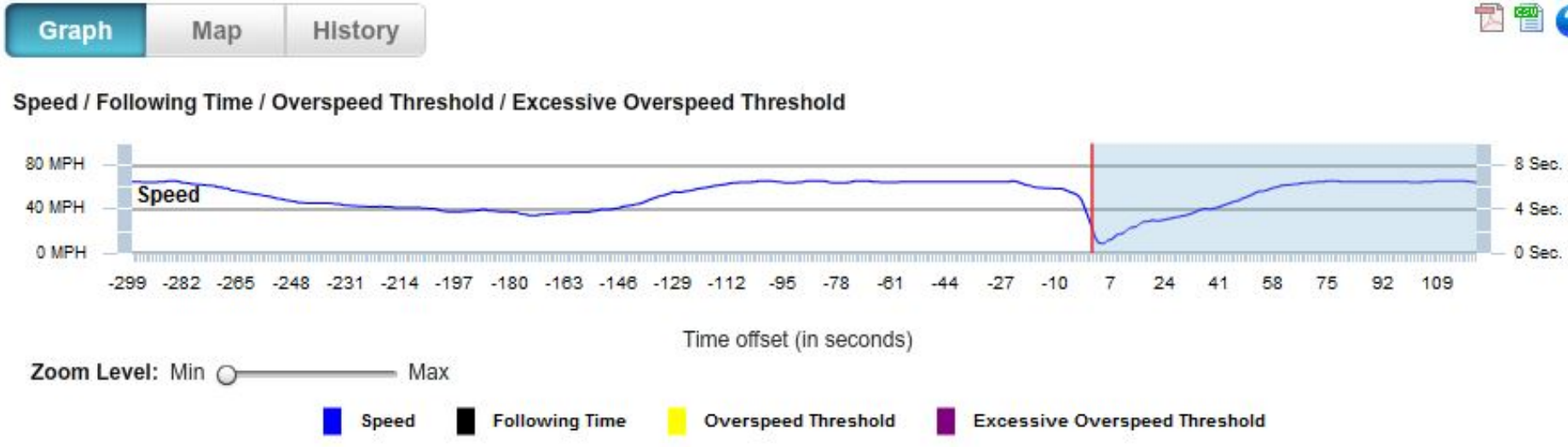
SpeedGauge™ Incident Map

Streetview Request Speed Limit Update Create geofence speed zone



Max set at 65mph. Speeding often occurs off interstate

CRITICAL EVENT - HARD BRAKING



Stability Control Incident Details

Showing State(s) All, From 09/01/2013, To 10/24/2013, Filter HB & Stability Control

Occurred At : W Military Hwy, Chesapeake,
VA 23321

Vehicle ID : 513

Vehicle UA : 105385002

Driver ID : 03661

Parking brake status : Not engaged

Incident time : 09/16/2013 12:27 PM

Incident speed : 12.0 MPH

Stability control count : 2 messages

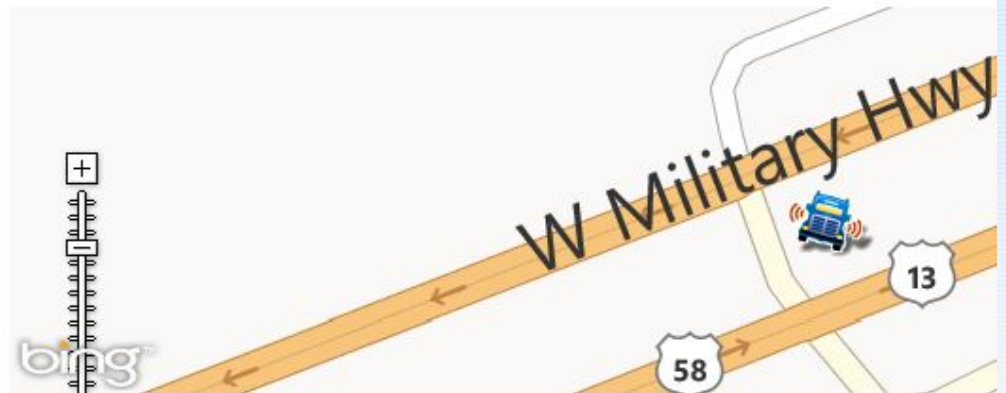
State: | ▾

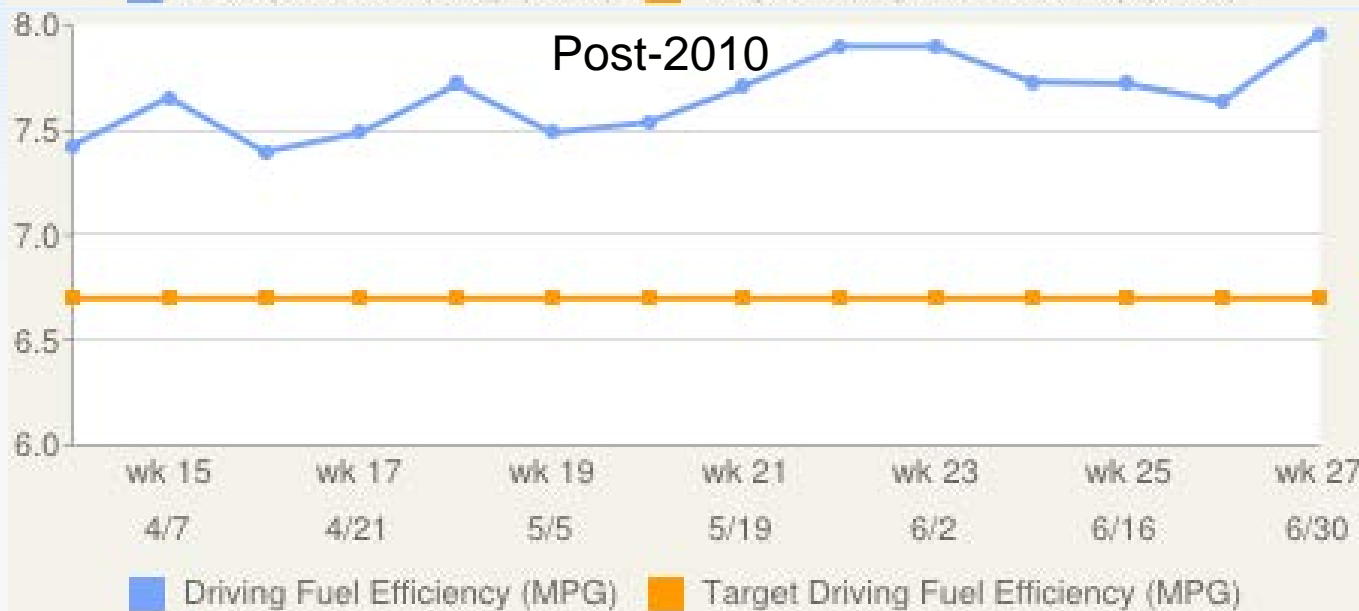
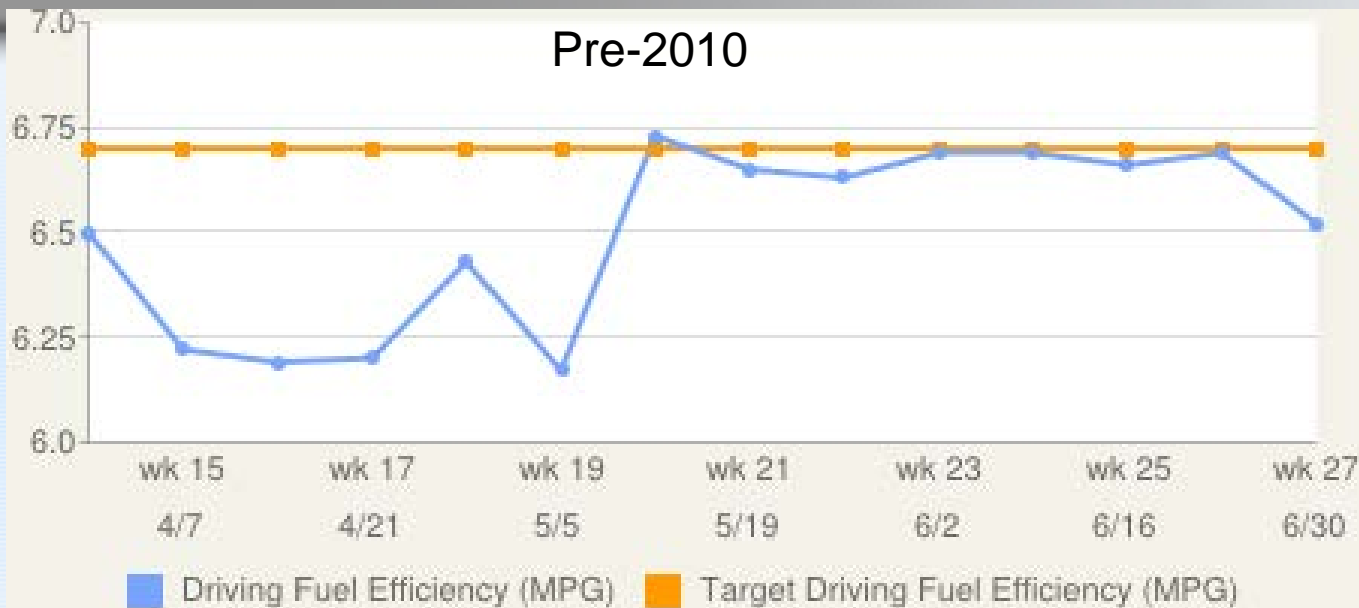
Note:

Graph

Map

History





- Fuel economy
- Idling
- Engine codes
- Inspection reports

Current Shipments

Current Shipments are shipments that have been picked up, planned or delivered within 24 hours.

Track Shipments

Filters

Current Shipments

[Refresh Filters](#)



Perfect information on location, ETA, manifest, route. Redundant tracking with smartphones.

[Previous](#) [Next](#) Per Page

| Pickup (ET) | Origin | Delivery (ET) | Destination | Status | Tracking No. |
|---------------|---------------|---------------|---------------|------------|------------------------|
| 1/11/11 11:00 | [redacted] OH | 1/11/11 23:30 | [redacted] PA | Planned | 248865 |
| 1/10/11 11:25 | [redacted] VA | 1/10/11 20:30 | [redacted] PA | In Transit | 249130 |