Advancements in Technology to Protect Against Threats and Prevent Accidents/Incidents

Chet McHenry
SmartDrive Systems, Director Transit
San Diego, California
Performance Improvement Program

- Critical email alerts
- Real-time feedback
- Performance reports: Drivers, Sites, Coaching

Collect Driving Data

Better Drivers

Review & Analyze

Improvement Programs

SMARTDRIVE®

Critical email alerts
Interconnects & Sensor Inputs

- Video & Audio
- Maneuvers (Acceleration, Braking, Turns)
- Speed
- Location
- Options
- ATP, ATC Alarm
- Intercom call (Included in Premium service)
Rail Camera Views

Night

Daytime
What we capture . . .

- Collisions
- Near Collisions
- Speeding, Hard Braking, Hard Coupling
- Signal Violations, Compliance Violations
- Distracted Operators – Mobile Device, Food, Etc
- Operator Recognition – Outstanding Performance
- Optional
  - Intercom violations
  - PTC, ATP, ATC alarms
Recognizing Operators for Outstanding Performance

- Operator is signaling a head of the curve. He is operating at speed of 20 mph.
- Seeing the risk, Operator begins signal again.
- When the rail worker still jumps on the track, operator pushes the emergency stop.
Signal Violations

- Braking Trigger
- Passing Bar Signal, Unsafe Rail Crossing
Passing Red over Red & Passing Signal Bar

- Operator is approaching station at speed 15 mph.
- Operator missed the red over red signal.
- He tries to brake, but it is too late.
Incident Reported in Los Angeles Times
### Incident Reported in **Los Angeles Times**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:51 AM</td>
<td>Recorded collision</td>
</tr>
<tr>
<td><strong>10:17 AM</strong></td>
<td>• Event available to LA Metro</td>
</tr>
<tr>
<td></td>
<td>• 26 minutes after collision</td>
</tr>
<tr>
<td><strong>11:15 AM</strong></td>
<td>• LA Times published article on web</td>
</tr>
<tr>
<td><strong>11:45 AM</strong></td>
<td>• LA Metro provided official quote to LA Times indicating that the operator of the minivan ran a red light</td>
</tr>
</tbody>
</table>

- This real world example demonstrates…
  - Immediate availability of the video to LA Metro
  - Quick resolution of the incident
  - Exoneration of the operator from fault
  - Protecting the agency from inaccurate representations
  - Reducing costs from claims and fraud