

TrackSafe Phase II Update

Abhay "A.J." Joshi

MARTA,

Project Manager

Atlanta, Georgia



Mark Willer

Bombardier,

Product Manager

Mississauga, Ontario

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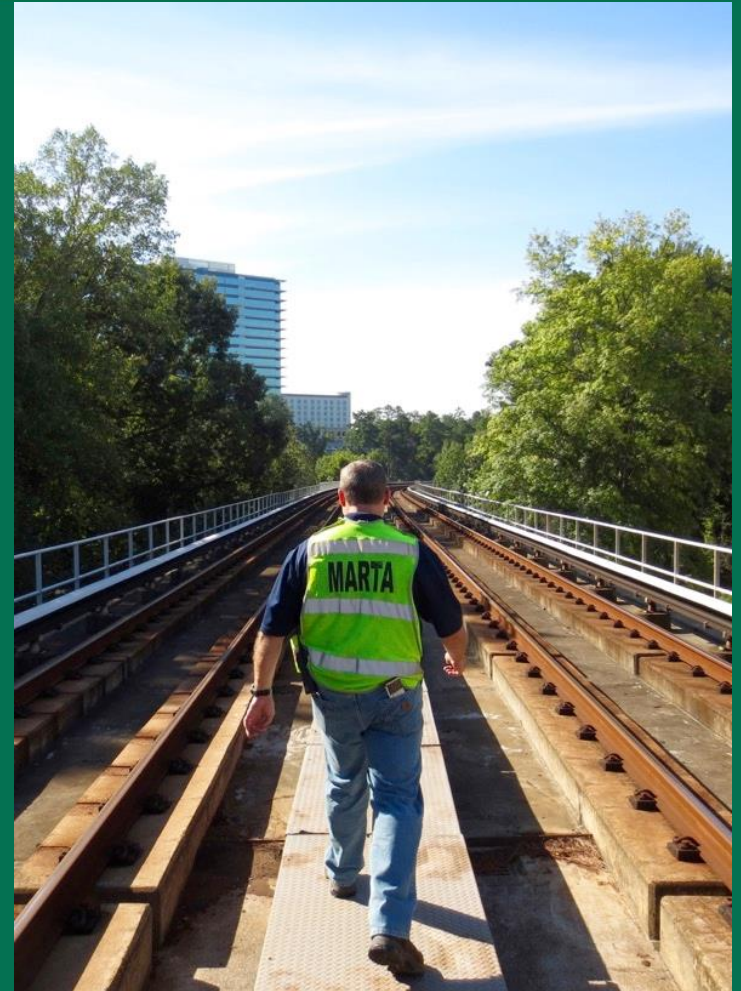
the evolution of mobility

Rail Conference



Agenda

- MARTA system overview
- Bombardier's SafeSuite
- Phase II project highlights
- Project progress
- Next steps

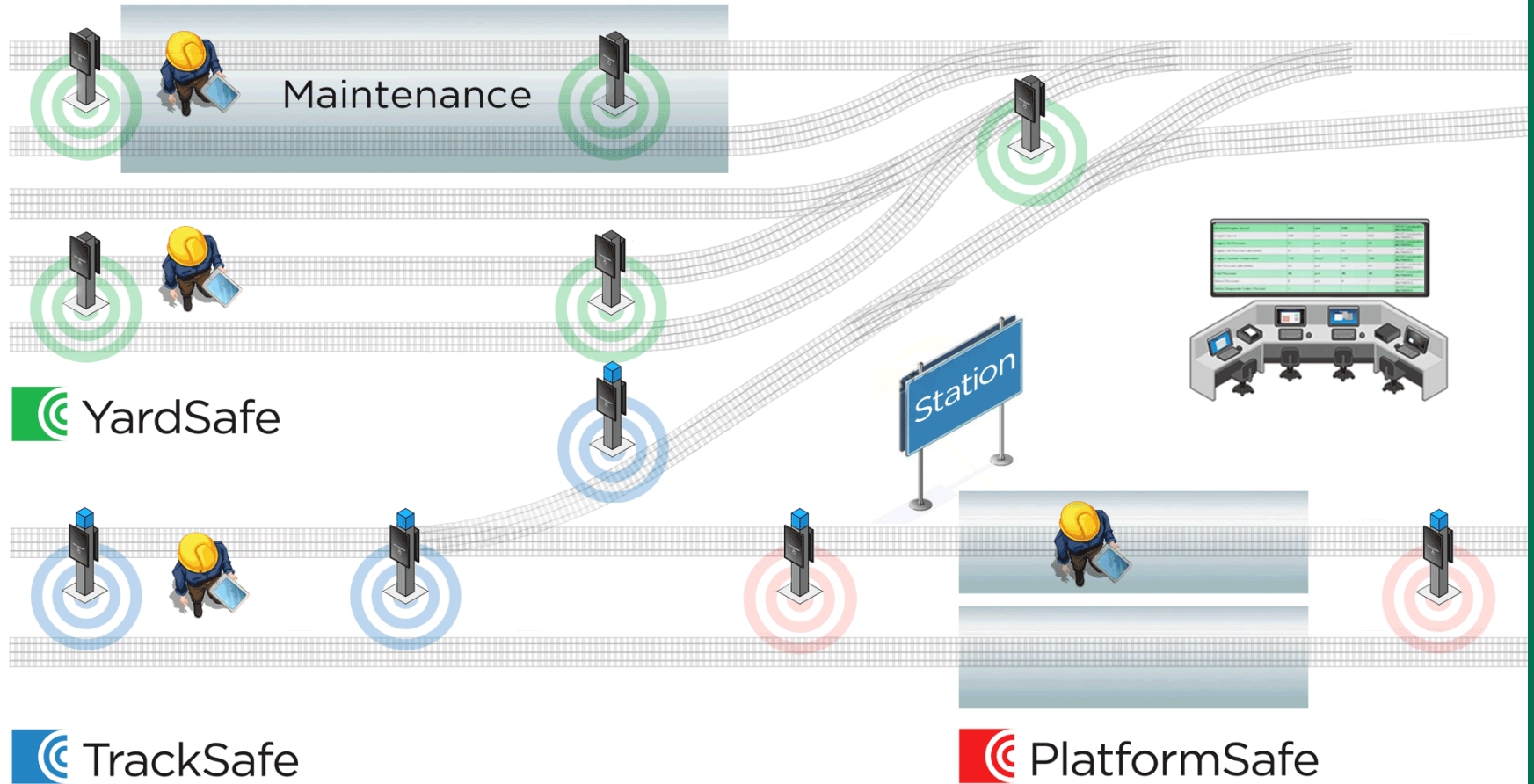


MARTA System Overview



- 9th Largest Rapid Transit System in the US
- System started in 1979
- 104 Miles of Mainline Track
- 38 Stations
- 68.6 Million – 2016 Ridership
- 230,000 Average Daily Ridership
- 234 Rail Car Fleet
- 550 Transit Bus Fleet
- 211 Paratransit Vehicles

SafeSuite – Integrated Approach to Safety

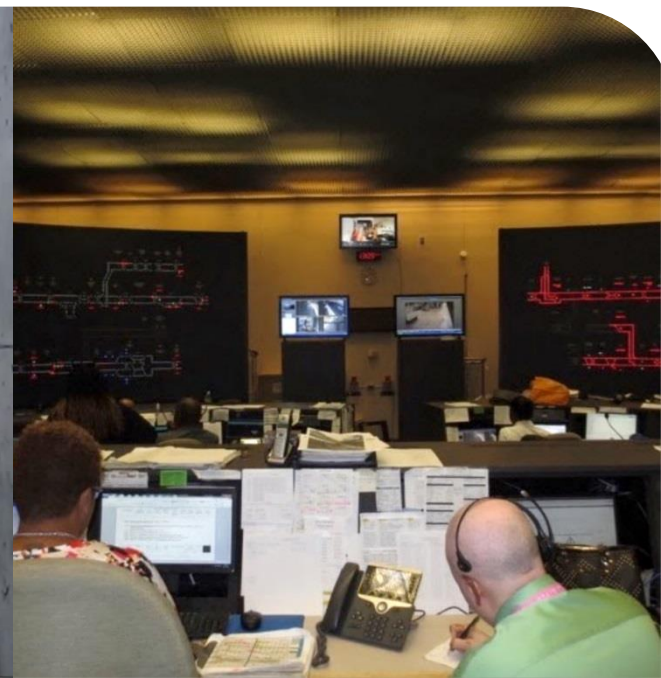


TrackSafe – Comprehensive Innovative Solution

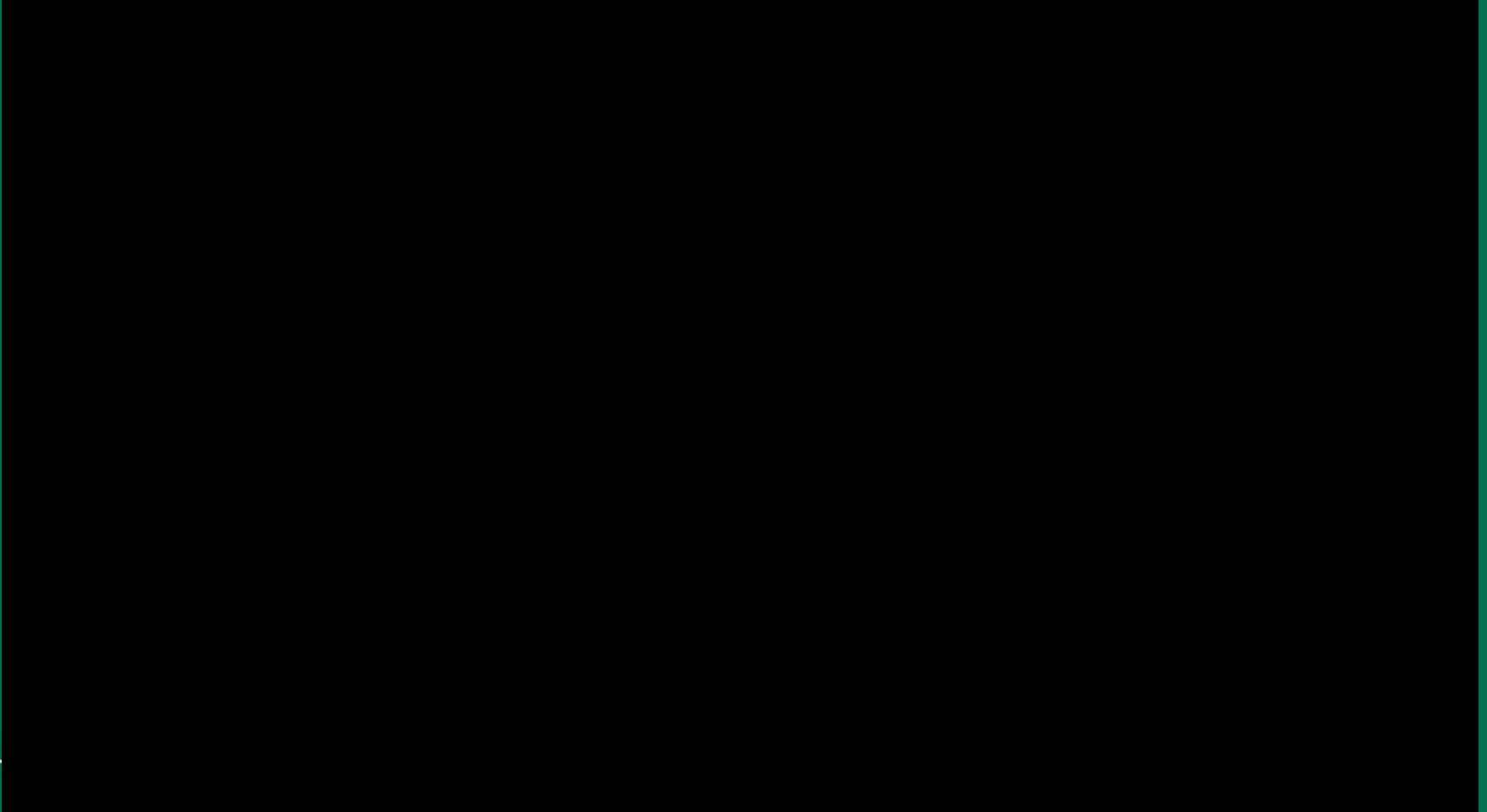
Provides Train operators with real time awareness of workers track.

Provides Track workers with consistent, highly relevant audible, visual and tactile alerts when trains or equipment is approaching.

Provides Rail Control with visibility of worker locations, activities and emergency situations.

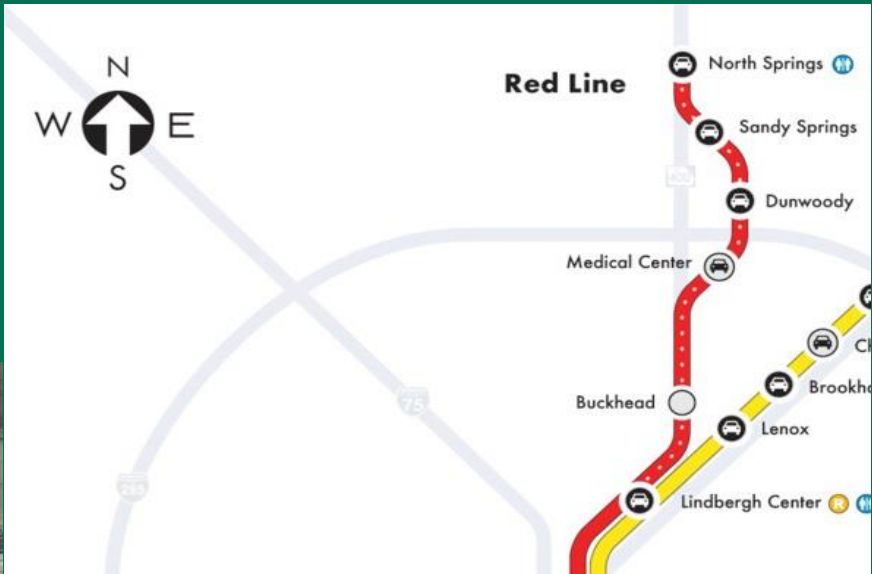


Video



FTA Phase II Award

- FTA Office of Research, Demonstration and Innovation awarded \$4.2 million to expand deployment to MARTA's Red Line

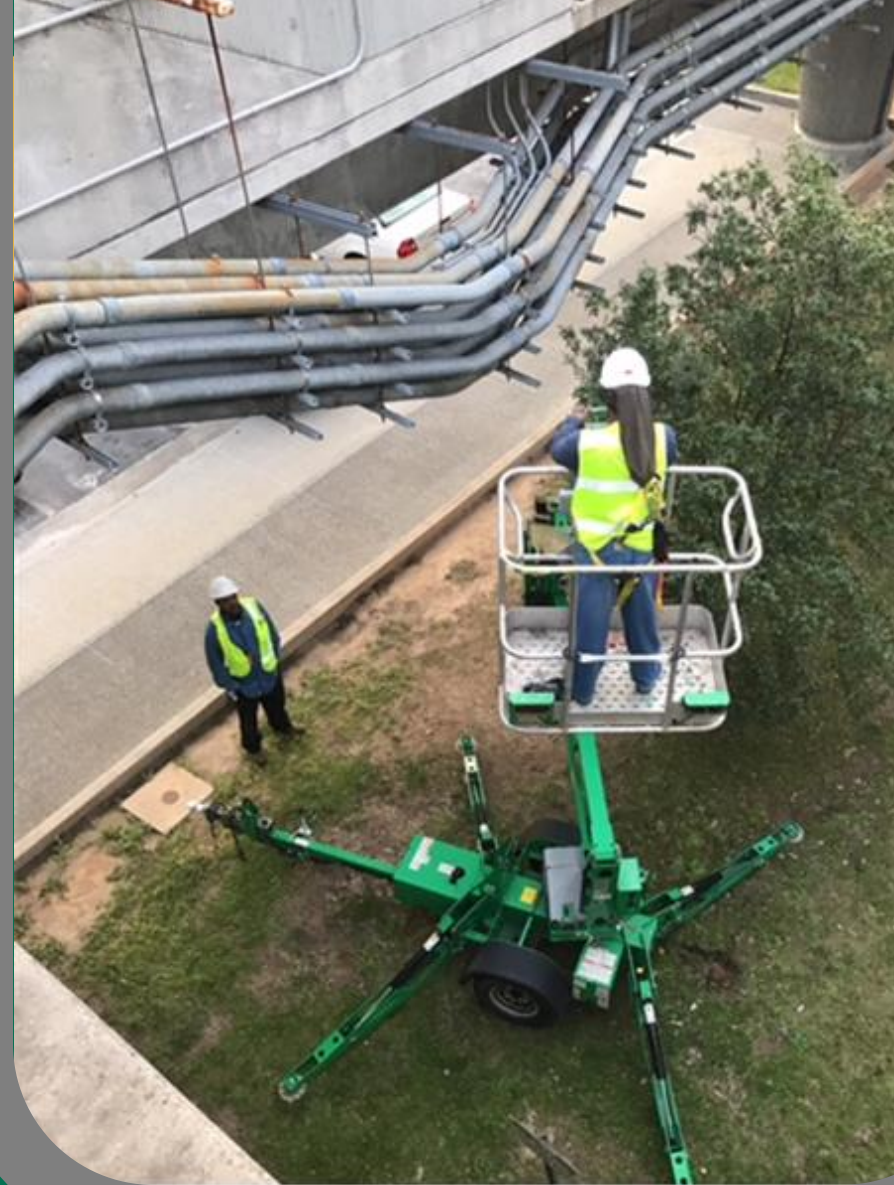


- Red Line contains high hazard conditions such as:
 - Aerial Track Sections
 - Tunnel Sections
 - Curved Sections
 - At-grade Sections
 - Parallel to highway

Project Progress

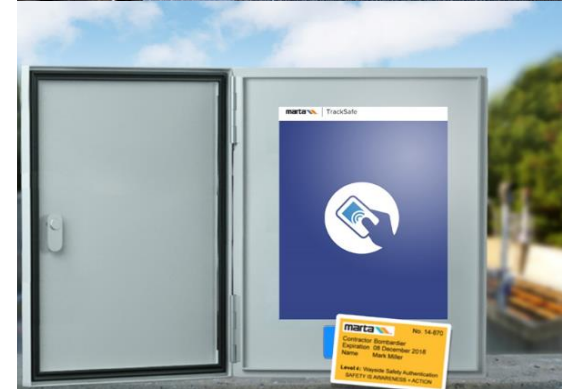
Key Achievements in 2017 to date:

- Preliminary and Final Design Accepted
- Installation Plan Accepted
- Test Plan Accepted
- Field Installation Underway
- Hardware Configuration Plan Submitted



Wayside Access Unit

- Provides Authorized Access to the Wayside by:
 - Verifying Worker Identification
 - Confirming Certification Level
 - Establishing the Dedicated Look Out
- Installed at Stations, High Rail Access Points, or Walk-In gates.
- Vandal resistant
- Enclosure designed to look inconspicuous (similar to electrical switchgear panel)



Tag In Unit (TIU)



- Connects to the TrackSafe System via a single POE cable
- Capable of self-health monitoring
- Integrated radar detection point
- Audible alert device
- Long range RFID readers
- Touch screen
- Visual alert for track workers

LEVEL 1
WAYSIDE SAFETY
AUTHORIZATION

1

**MICHAL
JOHNSON
CONTRACTOR**

Expiration Date
2018/04/06

marta 

Operator Warning Light

- Connects to the TrackSafe System via a single POE cable
- Capable of self-health monitoring
- Integrated radar detection point
- Audible alert device
- Visual operator warning




WAYSIDE ACCESS UNIT – CHECK IN



marta | **N11 North Springs**

Welcome Alex.

 **Alexander Hymelfarb**

Lead | 123456 | Paired

Select Work Activity

3.473	Northland Drive F271 – Dunwoody F235 (WI)	120 min	Edit
3.478	Medical Center F225 – Dunwoody F235 (WI)	35 min	Edit

[+ Add new work activity](#)

[← Cancel](#) [Crew Check-In >](#)

WAYSIDE ACCESS UNIT – CHECK IN



N11 North Springs

Edit Scheduled Clearance

3.473 Northland Drive F271 – Dunwoody F235 (WI)

Time in

Wednesday Jan 19, 2017
6:00 AM

Time out

Wednesday Jan 19, 2017
8:00 AM

Project/Event

Inputted content regarding the project we will put two lines

Track Out

Inputted content regarding the project we will put two lines

Instructions

Inputted content regarding the project we will put two lines

Done



N11 North Springs

Confirm PPE for crew of XX

(Including yourself)



MARTA Approved Safety Vest



MARTA Photo ID Badge



Flashlight



Whistle and/or Air Horn



Safety Shoes or Work Shoes



TORIS



Additional PPE for Flag People



Appropriate PPE for Level 1 Crew

Cancel

Ready to proceed

RAIL SERVICE CONTROL CENTER INTERFACE

The screenshot displays the TrackSafe interface. The top navigation bar includes 'TrackSafe', 'Rail Control', and 'Logout'. The main area is divided into two sections: a track map on the left and a 'Work Tray' on the right.

Track Map: Shows a schematic of tracks with labels for 'Dunwoody F230', 'Sandy Springs F240', 'North Springs F250', 'F235', and 'F245'. A blue dot indicates a worker's location on the track.

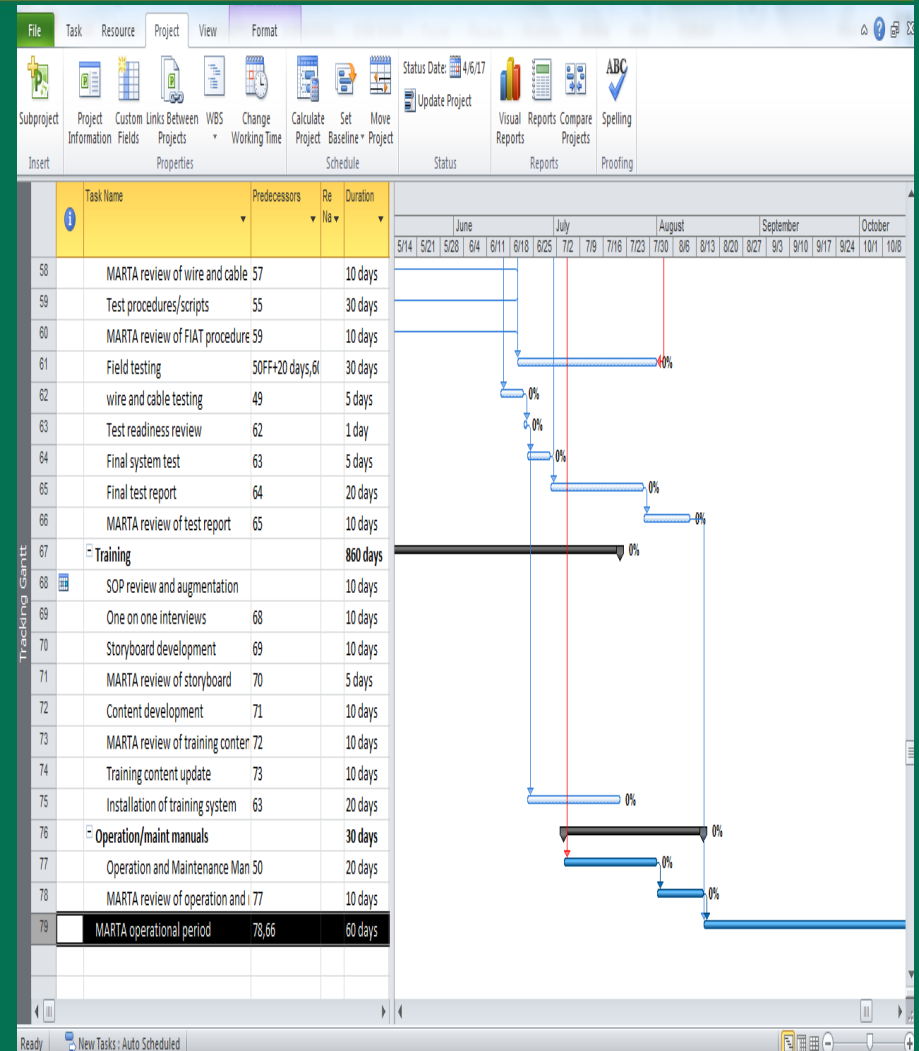
Work Tray: Contains a search bar and a list of work orders. The first work order is for 'Dec 12, 2016 3:30 PM - 3:50 PM' with the title '1.479: Safe Clearance, Medical Center F225 - North Springs F245'. The second work order is for 'Dec 12, 2016 3:00 PM - 4:00 PM' with the title '1.500: Safe Clearance, North Springs F245 - Tail Track F250'. Each work order includes details like 'Power: On / Stations Affected: None', 'Radio Number: 90210', and 'Track Out:'. Action links such as 'Assign Worker / View Workers / Edit' are provided for each entry.

Provides real-time visual display of track worker locations

Automates wayside entry with a better, faster, more compliant process

Key Remaining Project Activities for 2017

- Completion of installation
- Testing and Commissioning
- Finalize SOP review
- Production of E-learning course
- Training
- Operating period
- Independent review



Thank you for
your interest!



Please Join Us for a **LIVE DEMONSTRATION**

of  **TrackSafe** at the APTA Expo

Abhay "A.J." Joshi - ajoshi@itsmarta.com

Mark Willer - mark.willer@rail.bombardier.com



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