



NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD

Item 11- PASSENGER RAIL SAFETY AND PREPAREDNESS INITIATIVES

July 22, 2015



PANELISTS



Erich Kolig, Maryland Transit Administration/MARC



Doug Allen, Virginia Railway Express



Robert Giorgio, Amtrak

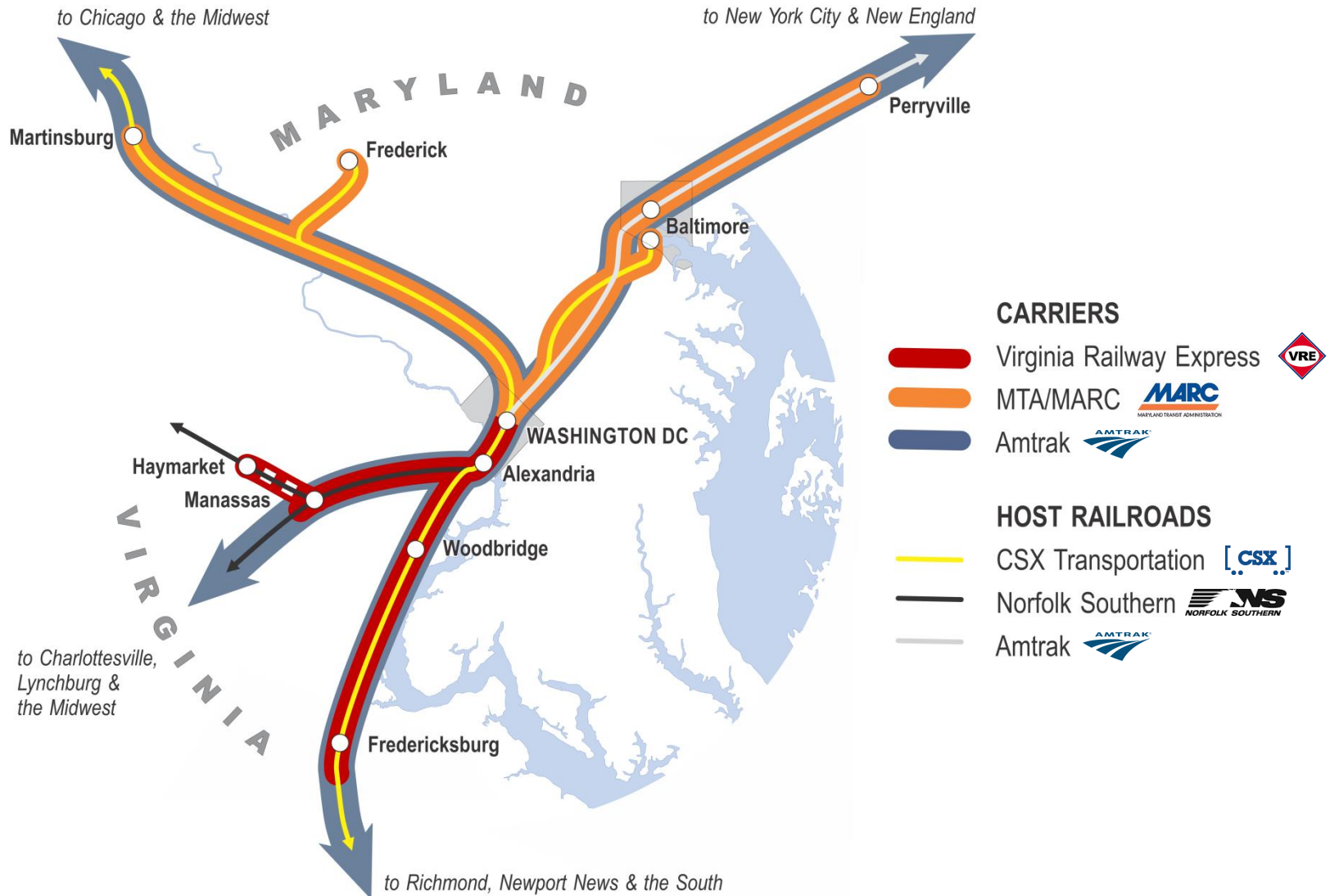


R. Earl Lewis, Jr., Co-Chair, COG Emergency Transportation Committee



Andrew Meese, TPB Staff

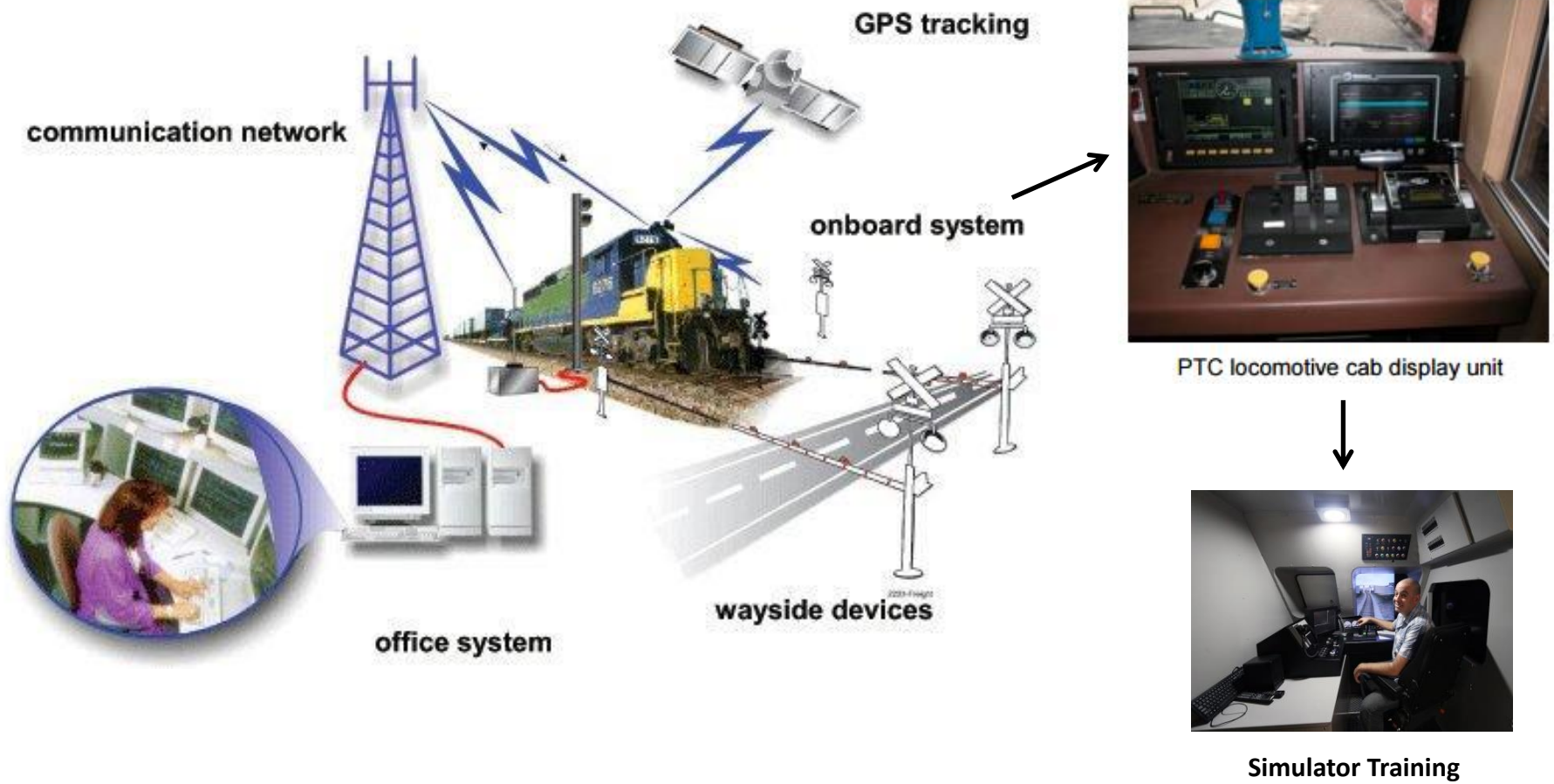
REGIONAL PASSENGER RAILROAD SYSTEMS



Positive Train Control (PTC) 101

- Positive train control (PTC) is a set of highly advanced technologies designed to automatically stop or slow a train before certain types of accidents occur.
- Specifically, PTC, as mandated by Congress in the [Rail Safety Improvement Act of 2008 \(RSIA\)](#), must be designed to prevent:
 - Train-to-train collisions
 - Derailments caused by excessive speed
 - Unauthorized incursions by trains onto sections of track where maintenance activities are taking place
 - Movement of a train through a track switch left in the wrong position

PTC Technology Overview



2 DIFFERENT SYSTEMS PLANNED

- CSX and NS and other freight railroads (class 1's) have chosen to install Interoperable Electronic Train Management System (*I-ETMS*)
PTC

- AMTRAK

- On North East Corridor (NEC): *9-Aspect Cab Signal* with *Advanced Civil Speed Enforcement (ACSES- II)* overlay

- On other parts of system: IETMS equipment on locomotives – track owned by freight railroads

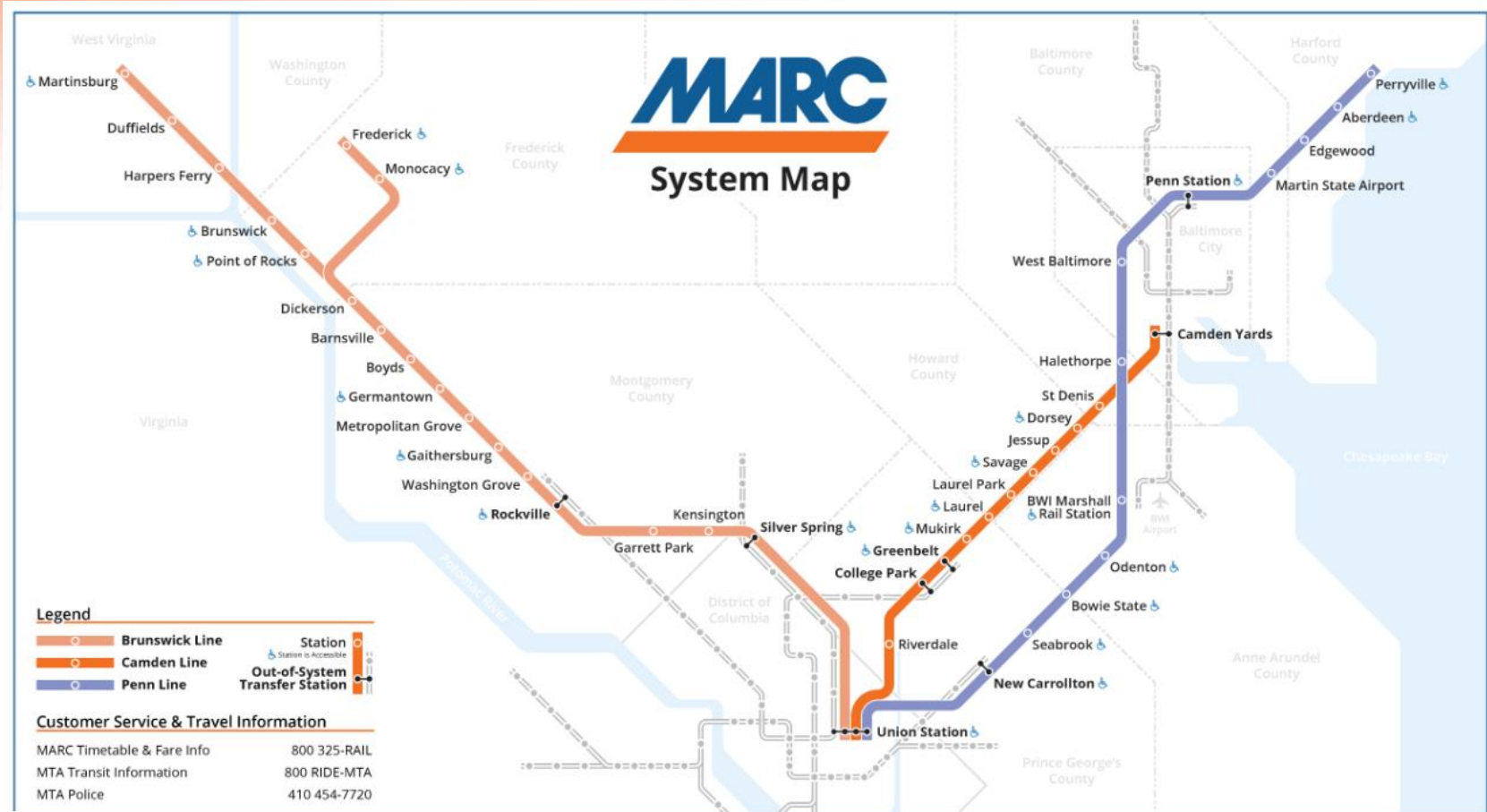
- Originally was going to equip south end of NEC with IETMS as well, now being done by Norfolk Southern in conjunction with AMTRAK



Erich Kolig, MTA /MARC



MARC's OPERATING ENVIRONMENT



WHAT DOES MARC PLAN FOR PTC?

- Since MARC is a “tenant” railroad, only need to equip locomotives and cab cars – not the tracks
- IETMS was going to be used on both systems so instead of dual equipping fleet decision was to go with IETMS.
- MARC will meet FRA mandate to have the operational fleet equipped by 12/2015 deadline
- With MARC’s equipment installed, will need to wait until host railroads turn their systems on.

Safety Features Already in Place

- In MARC's operating area on NEC cab signal is in place and operational
- All of MARCs locomotives and cab cars have 9-aspect cab signal installed
- CSX lines currently do not have any system up and running, however speeds are dramatically lower:
 - NEC max speed 125
 - Brunswick and Camden Lines max speed 70-79mph, most operation at 50 mph.
- Lessons learned and equipment upgrades from 1996 Silver Spring accident

Operational Safety

- Operator receives “penalty” if going above cab signal speed or if cab signal speed changes, train will brake to stop automatically.
- “Deadman” function is on all locomotives and cab cars
- CFR rules and regulations, regulatory testing and enforcement
- Ongoing first responder training, updates for new car types, tabletop exercise.
- Joint communications between MARC, 3rd party contractor (Bombardier) and Amtrak's Operations Centers
- Contingency plans include cross honoring of tickets on other forms of transportation, bus bridges (limited for capacity), alternate lines if available.



Doug Allen, Virginia Railway Express

VIRGINIA RAILWAY EXPRESS

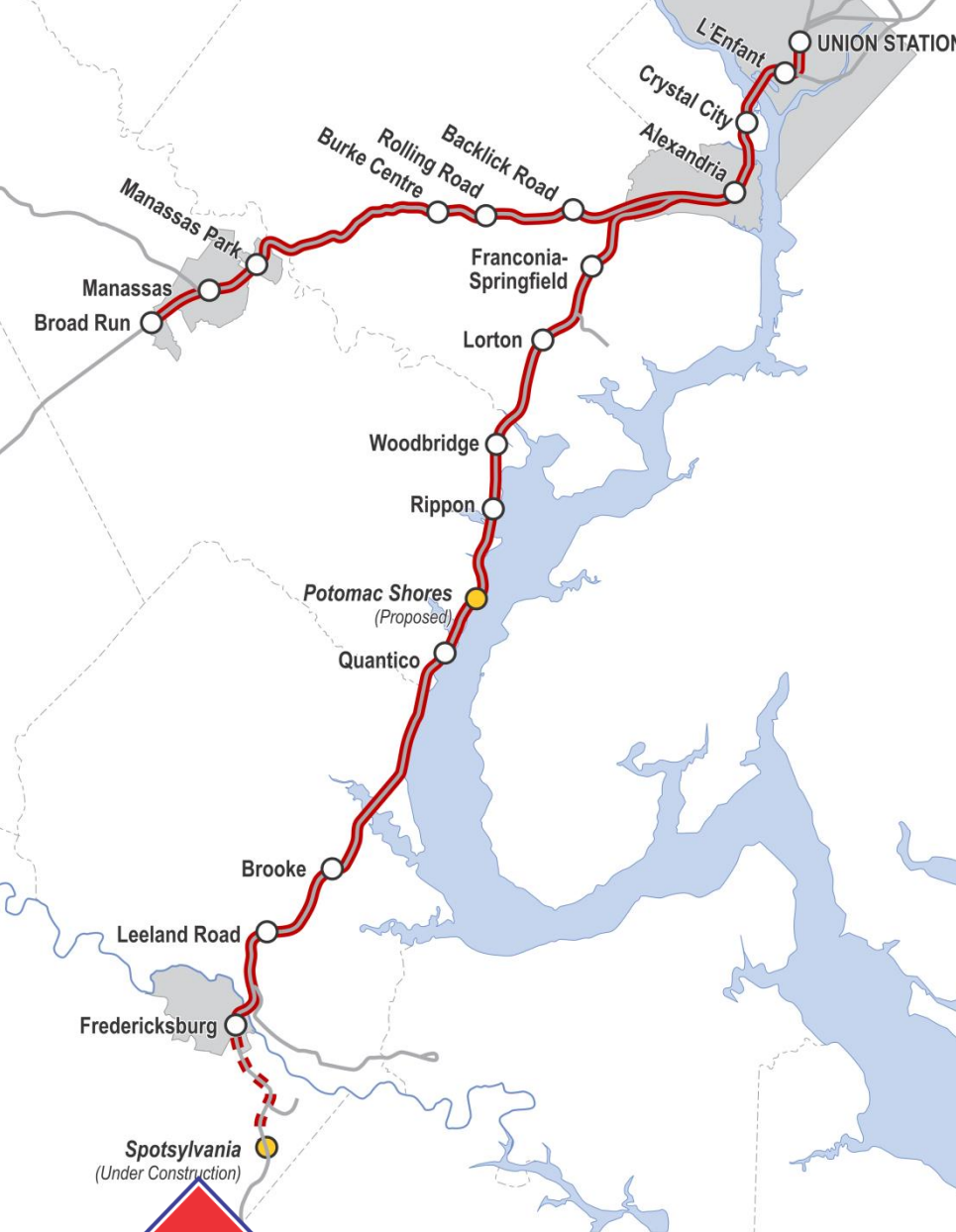
Two Lines:

- Manassas Line (NS)

- I-66 corridor
- 35 miles/45 minutes to DC
- 16 daily trains
- 2.25M riders/year

- Fredericksburg Line (CSX)

- I-95 corridor
- 54 miles/84 minutes to DC
- 14 daily trains
- 2.75M riders/year
- Spotsylvania Extension later this year



A BETTER WAY. A BETTER LIFE.

VRE Safety Program

Safety features already in place

- Locomotive Technology (Alertness Controls, Overspeed Controls)
- Automatic Block Signals/Cab Signal Systems
- Specific Railroad Operating Rules/VRE Procedures
- Efficiency Testing

How communications take place with other railroads and with the public

- VRE Communications Center

Contingency plans for major service outage

- Continuity plans in place
 - Redundant technological functions and workspaces
- Operational activity contingent on the host railroad status



A BETTER WAY. A BETTER LIFE.

Ongoing Preparation Activities

- Hands on passenger train emergency response training
 - nearly 300 first responders in 5 jurisdictions YTD 2015
- Large full-scale disaster response scenario
- Participation on MWCOG's PRSS / Contributor - Regional Rail Response Manual



A BETTER WAY. A BETTER LIFE.

Positive Train Control Status

- VRE Locomotives and Cab Cars
 - On-board equipment installed by VRE in 2015
 - Will be interoperable with CSX, NS
- CSX, NS installing wayside system
- Testing, certification expected in 2016



A BETTER WAY. A BETTER LIFE.



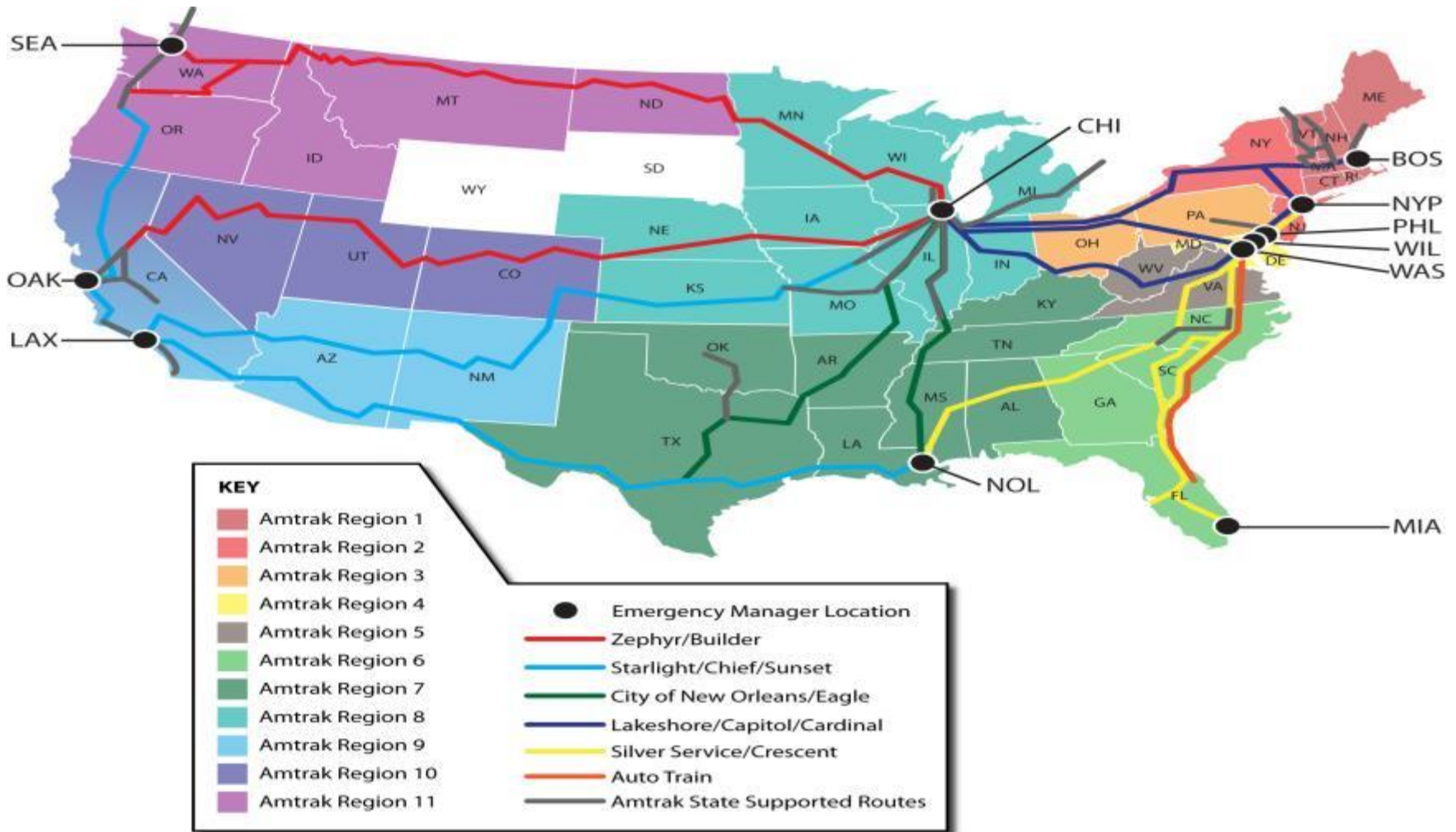
Robert Giorgio, Amtrak

Emergency Management & Corporate Security Department

- Amtrak's EMCS Department was created in April 2012 to:
 - Improve Amtrak's security and safety posture in support of the Amtrak Strategic Plan.
- Mission: To provide for the safety and security of our customers and employees through:
 - Multi-hazard planning and risk management process that involves emergency preparedness and protection activities;
 - Coordinating response and recovery efforts, and;
 - Mitigating threats and vulnerabilities across the rail network.



Regional Emergency Manager Locations



REM Roles and Responsibilities

- Build relationships with local, state and Federal response organizations including fire, law enforcement, and emergency management.
- Conduct Passenger Train Emergency Response (PTER) training
 - Train with rail stakeholders and first responders to ensure their preparedness should a rail emergency occur in their jurisdiction and to learn how best to respond to the incident.
- Serve as a regional liaison to planning and work groups and support regional events (e.g. Super Bowl).
- Coordinate with local department and agencies on response planning, training, and exercises.

EMCS Responsibilities

- Intelligent Notification Project
- Continuity of Operations Plans (COOP)
- Facility Emergency Plans (FEP) - (29 CFR 1910.38)
- Emergency Preparedness Planning (49 CFR 239)
 - Passenger Train Emergency Preparedness
 - Host Railroad Plans
 - Emergency Responder Training
- Enterprise wide training and exercise planning
- Video Security Surveillance and Access Control Program
- Security Risk Management Program
- Security Awareness Program
- Security and Preparedness Planning
- Security and Preparedness Training and Exercises
- Conduct Passenger Train Emergency Response (PTER) training
- Employee identification program (Smart ID)
- Amtrak Incident Response Team
- Family Assistance Center Plan / Assurances

NCR Interoperability

- Training
 - PTER
 - Railsafe
 - Rail Tactics
- APX 7000 portable radios / programming
 - Signatory on MWCOG communications MOU
- WAWAS phone in Washington Union Station Command Post
- WebEOC access
- Multi-agency camera access
- Member of the MWCOG Passenger Rail Safety Subcommittee

Amtrak North East Corridor (NEC)

- Rail carriers operating in Amtrak EMCS Region 5 (DC, VA, WV, KY)
 - National Railroad Passenger Corporation- Amtrak
 - Commuter Rail - MARC, VRE
 - Freight - Norfolk Southern, CSX, Buckingham Branch Railroad
- The NEC is the busiest railroad in North America, averaging 750,000 riders on trains operating over some portion of the Washington-Boston route each day.
 - Washington Union Station – 2nd busiest - over 5 million riders in 2012
 - Approx. 212 trains per day
 - Busiest WMATA Station – Red Line
 - Large bus deck
 - Multiple Law Enforcement / First Response agencies
- The only railroad in North America to maintain right of way for service at **speeds in excess of 100 mph**

Questions



Steven M. Fruchtman

Regional Emergency Manager (Region 5 – DC | VA | WV | KY)

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1-800-331-0008 – 24 Hour Emergency Number – Amtrak Police National Communications Center

THANK YOU

Questions, Comments?



NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD