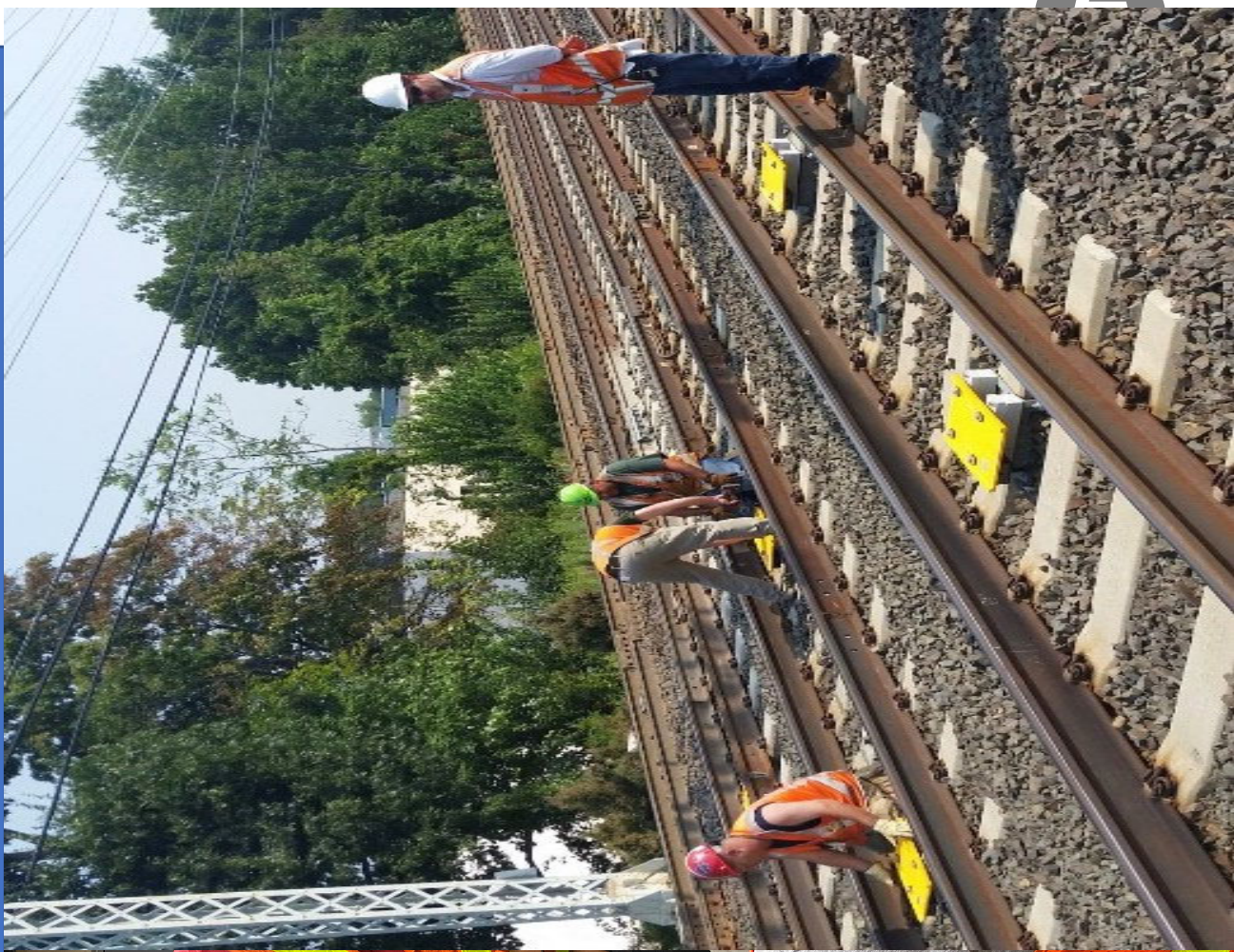
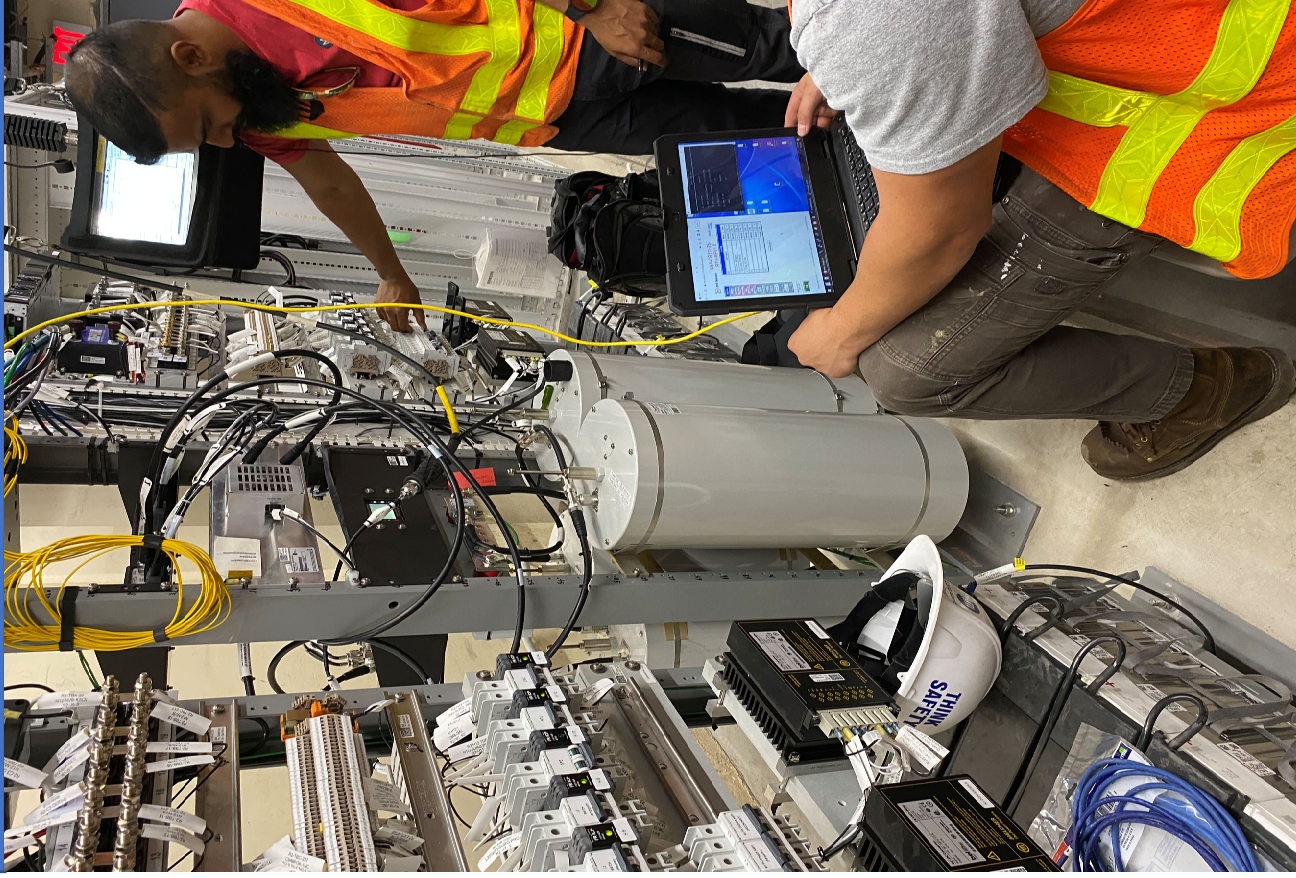




Joint LIRR/MNR PTC Update Committee Meeting May 22, 2023



LIRR Project Update



Implementation Summary

All trains are operating with full PTC functionality on entire LIRR territory and continue to be monitored daily with any issues mitigated.

Progress

- Implemented PTC Operations in Grand Central Madison.
- To meet contract completion with the System Integrator Contractor (Alstom/Siemens):
 - Continue to receive software releases to correct system variances and meet system contract requirements.
 - Continue to work to meet contract obligations for system reliability requirements (ARDT).
 - Continue receiving remaining Trainings emphasizing on taking PTC System Integrator role.
 - Continue to ensure all contract requirements are met.
- Working with MNR and LIRR Legal on a contract closure agreement
- Establishing Technical Service Agreement (TSA) for the future PTC work.
- Coordinate with LIRR Engineering, Transportation, Maintenance of Equipment support, and contractor team, to support all on-going and up-coming infrastructure projects that include design, field work and testing.
- Continue Interoperability with Amtrak from Harold Interlocking through Penn Station.
- Continue working with the Northeast Corridor railroads to address FRA mandated conditions
 - Positive Train Stop Release (PTSR) – adds additional safety to system by incorporating code required by Dispatchers to enable the Positive Train Stop Override button prior to its use by Engineers.
 - Missed Transponder – Mitigation of issue when onboard computer misses read of transponders. FRA and NEC pursuing onboard database update.



LIRR PTC Timeline – Look Ahead Plan



2023

- Implemented PTC Operations in Grand Central Madison.
- Finalize contract closure agreement
- Continue Integrated Factory Acceptance Testing (FAT) for new On-Board Computer (OBC) Software Release
- Complete Onboard equipment field modifications
- Receive all final software changes to meet contract system requirements and to correct variances and NCRs
- Receive PTC Software Data Maintenance Facility (SDMF) delivery
- Complete all outstanding trainings
- Anticipate resolution with the FRA and NEC railroads on an agreed plan to move forward to resolve the Safety Plan conditions
- Continue to support on-going Infrastructure projects with changes that require updates to the PTC design
- Develop plan for HMAC Security Key Exchange and Management Services

2024

- Complete ARDT (Availability Reliability Demonstration Test) & Warranty Programs
- Achieve Final Contract Completion
- Commence use of 5-year Maintenance Option with the PTC System Integrator
- Continue to support on-going Infrastructure projects with changes that require updates to the PTC design
- Anticipate PTC Grant Application approval and funding from FRA to proceed with design development for Positive Train Stop Release (PTSR) Safety Plan condition



MNR Project Update



Implementation Summary

All trains are operating with full PTC Functionality on entire MNR territory including East and West of Hudson with continued monitoring daily and any issues mitigated.

Progress

- To achieve contract completion with the System Integrator, close software variances across all subsystems improving operations and complete remaining contract requirements
 - Legal negotiations ongoing for contract closure agreement
- PTC Installations and Testing supporting infrastructure projects and New Haven Line Signal upgrades
 - WIU Site Installations Testing (SIT) completed for the new CP 241
 - FRA Request for Amendment (RFA) approval received for Signal/PTC commissioning at new CP 243
 - Commissioned speed upgrades associated with the 35 switch replacement at CP 261
- Continue to improve PTC operations by closing software variances and NCRs across all subsystems
 - Alstom M8 OBC Software 1.4 release RFA approved by the FRA. Will be deployed on some revenue service pairs for testing by June 2023. Software 1.5 with ATC/ACES software modifications required to address FRA Conditions is scheduled for 4th Q 2023.
 - Siemens OBC Software release 5.4 RFA is submitted to FRA approval. Deployment expected in 3rd Q 2023.
 - Office release 3.9.3.1 is undergoing FAT testing expected to be deployed in 3rd Q 2023.
- Continue working with the Northeast Corridor railroads to address FRA-mandated conditions:
 - Positive Train Stop Release (PTSR) – adds additional safety to system by incorporating code to be provided by RTCs to enable the Positive Train Stop Override button prior to its use by Engineers.
 - Missed Transponder - Mitigation of issue when onboard computer misses read of transponders. FRA response is pending to the joint NEC Letter sent. FRA and NEC pursuing onboard database update.



MNR PTC Timeline – Look Ahead Plan



2023

- Continue closeout of open variances/NCRs with lab and field testing of software releases for Office, Wayside and Onboard subsystems and subsequent deployment fleetwide and right-of-way locations.
- Closeout PTC contract requirement, documentation (CDRLs, O&M Manuals and As-Builts) and Training
- Assume PTC System Integrator role with Systems Engineering, Configuration Management and Safety functions performed in-house with the Software Data Maintenance Facility (SDMF) delivery
- Finalize Systems Integrator contract closure agreement
- Completion of the speed upgrades associated with the 35 switch replacement at CP 261
- Continue to support Infrastructure projects including Signal Upgrades for CP 230, CP 241 and new CP 243
- Anticipate resolution with the FRA and NEC railroads on an agreed plan to resolve the Safety Plan conditions
- Develop plan for HMAC Security Key Exchange and Management Services
- Develop plan for design solution to the new FRA Reporting Requirement data collection and automation

2024

- Complete ARDT (Availability Reliability Demonstration Test) & Warranty Program
- Achieve Final Contract Completion
- Commence use of 5-year Maintenance Option with the PTC System Integrator
- Continue to support Infrastructure projects including new Walk Bridge associated PTC changes
- Anticipate PTC Grant Application approval and funding from FRA to proceed with design development of Positive Train Stop Release (PTSR) Safety Plan condition
- Support plans for Wayside, Onboard and Office updates required for Penn Station Access

