



Caltrain PTC Program Status & Wabtec Contract Award

Citizen Advisory Committee
March 21, 2018
Agenda Item #8

Discussion

- Program timeline
- PTC program and industry status
- Contracting objectives and strategy
- Path forward and Wabtec
- Funding
- Next Steps



Timeline

Date	Action
Pre-2008	Caltrain began development Communications Based Overlay Signal System (CBOSS) Positive Train Control (PTC)
2008	Rail Safety Improvement Act, Federal Mandate PTC
2011	Contract with PTG <ul style="list-style-type: none">• \$239M Budget (\$159M for PTG contract)• Original in-service date October 2015
2016	Peer review, multiple partnering efforts
2017 (Feb.)	Termination PTG contract after persistent delays, associated program cost increase and lack of performance

Timeline (Continued)

- PTG Termination Last Resort
 - Advised regulators (FRA & FTA)
 - Coordination with funding partners
 - Secured program assets (fiber, spares, Backup Control Center Facility etc)
- Summer 2017 Pursue Options with Alstom
 - Contractual issues associated w/ relationship PTG
 - Prohibitively unreasonable price
- Fall 2017 / Winter 2018 Revisit Scope
 - Solicit proposals from original RFP proposers
 - Evaluate industry since original award in 2011

Program Status

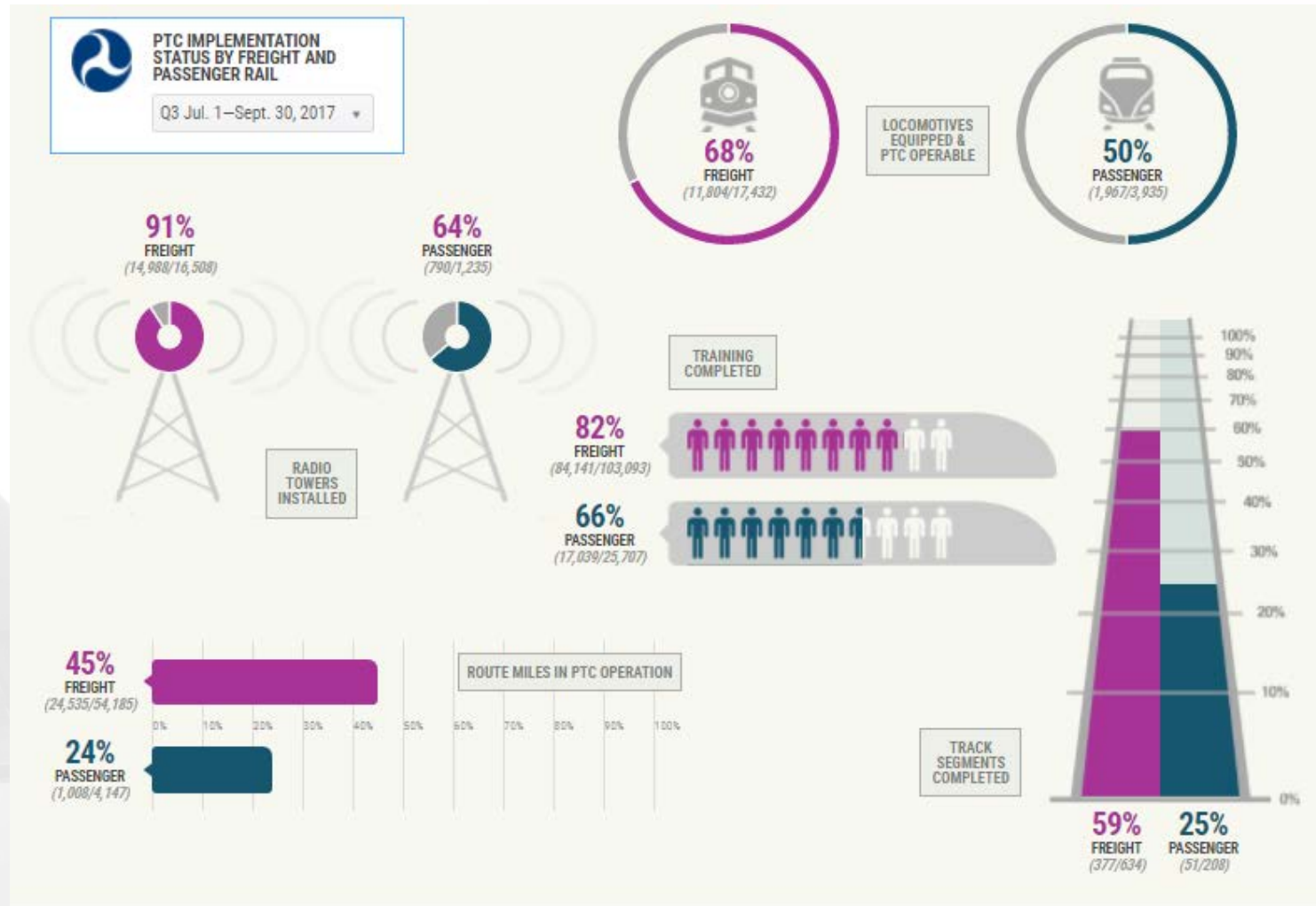
- Installation of all subsystems complete
 - On-Board Equipment
 - Wayside Interface Unit & FRA Official Validation Testing
 - Back office
 - Fiber optic backbone
 - Base stations (14)
 - Control center
 - High Rail Testing for FRA Official Critical Assets Complete
- Spectrum leased
- Train brake testing and federation in-process
- Draft RSD application submitted to FRA

Industry Status

- PTC implementation problematic
- FRA rigid requirements for extension to 2018 deadline
 - February 5 meeting with FRA indicates no flexibility
- Interoperability significant challenge even when using same technology
- Capital funding scarce
- Operations and SOGR funding not available from grants
 - Significant impacts to operating budgets
- Availability resources (people and technology) challenge
- Few vendors in the industry



Industry Status Continued



Lessons Learned

- Caltrain PTC team hired and in place
 - Will work in concert with Wabtec to deliver the program
 - Will ensure knowledge transfer
- Go live planning
 - Interdisciplinary team working to ensure smooth transition to operations and maintenance
- Peer discussions/benchmarking
 - Knowledge share among properties with the same challenges
 - Future benchmarking for estimating ongoing SOGR and Operating costs

Contracting Objectives & Strategy

- Meet December 2018 Federal PTC mandate
- Retain knowledge / experience project team
- Procure in compliance with applicable FTA guidelines
- Minimize procurement time
- Maximize cost efficiencies
- Minimize risk

Path Forward

- Most Viable Alternative: Wabtec
 - Second highest ranked proposer in original RFP
 - Additional recent proposal solicitation /outreach confirmed ability to deliver
 - Technology (I-ETMS) already approved by FRA
 - Used by Union Pacific (UP) on San Jose to Gilroy corridor (JPB was going to install same equipment on locomotives in UP territory)
 - Facilitates interoperability with UP and tenants
 - Reduced maintenance costs
 - Developed passenger rail functionality



Wabtec Transition

- Original CBOSS PTC designed to be interoperable with Wabtec platform
- Not a complete change-out

Onboard	~60% re-used/repurposed/retrofit. Some components used for spare, pilot units
Data Communication System (DCS)	100% reused
Office	75% Used with 2 servers kept for spares
Wayside	90% equipment can be re-used, the remainder used for spares
Backup Central Control Facility (BCCF)	100% reused
Database	100% reused
Transponders	Not used by I-ETMS. Keeping transponders to aid in train location in the future

Wabtec Contract

- Scope
 - On-board installation
 - Assessment and integration of all systems
 - Hi-Rail and Lab equipment
 - FRA documentation
- Incentives: \$2 million
- Risk sharing: \$1.9 million
- Contingency: \$4.5 million
- Total contract budget: \$49.5m
- Eligibility for extension by 12/18
- Compliant PTC system within allowed time

Funding Status

- ~\$59M remaining in funds
 - Cover contract budget through system acceptance
 - Program support costs through 2018
- Total program budget and funding plan to be developed
 - Brought back to the Board once field assessments have begun (June/July)
- Staff currently identifying grant and funding opportunities

Next Steps

- Contract
 - Award Contract and issue NTP
 - Begin field assessment and submit alternate Revenue Service Demonstration (RSD) strategy and extension request to FRA (April)
 - Onboard equipment installation complete (Dec)
 - Enter RSD (Dec)
 - Complete staff training
 - Submit Safety Certification Program
- Program
 - Monthly board reporting and updates
 - Ensure rigorous oversight feedback loop w/ partners
 - Continue PCEP PTC interface coordination
 - Develop final program budget and funding plan
 - Continue go live team efforts

Questions

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