Annual PTC Progress Report

2015

Southern California Regional Rail Authority (SCRRA)

FRA-2010-0048

The Annual Positive Train Control (PTC) Progress Report is due by March 31st of each year until full PTC system implementation is complete. The Annual PTC Progress Report must cover the railroad's implementation efforts and progress from the directly previous calendar year, and must be submitted electronically to the Federal Railroad Administration (FRA) via the FRA Secure Information Repository at https://sir.fra.dot.gov.

Name of Railroad or Entity Subject to 49 U.S.C. § 20157(a): Southern California Regional Rail Authority

Railroad Code: SCAX

Annual PTC Implementation Progress Report for: 2015

PTCIP Version Number of File with FRA (basis for goals stated): 2.0

Submission Date: 3/25/2016

Contents

1. Summary

Please provide a narrative summary of overall PTC implementation progress during the preceding calendar year (January 1 to December 31):

SCRRA has achieved system-wide RSD as of June 30, 2015 and has submitted a PTCSP December 30, 2015. Since beginning RSD in March of 2015, SCRRA has over 30,000 successful PTC trips. SCRRA seeks concurrence that it has fully implemented PTC per its PTCIP prior to December 31, 2015 and further reporting is no longer necessary. Quantities listed below in some cases exceed the goal. Upon achieving system-wide RSD, SCRRA is experiencing normal growth, expansion, acquisition of line segments and attrition of employees. New line segments are PTC equipped as part of commissioning and new employees are PTC trained as part of their employee training.

Category	Quantity Installed During Calendar Year	PTCIP Year End Goal (If Applicable)	Cumulative Quantity Installed at End of Calendar Year	Total Quantity Required for PTC Implementation
Locomotives Fully Equipped	2	109	111	112
Installation/Track Segments Completed	0	N/A	6	10
Radio Towers Fully Installed and Equipped	0	N/A	183	196
Employees Trained	197	N/A	336	330
Route Miles In Testing or Revenue Service Demonstration	223.47	N/A	223.47	248.85
Route Miles in PTC Operation	223.47	N/A	223.47	248.85

2. Update on Spectrum Acquisition

Required content:

- The amount of spectrum acquired and available for use during the applicable calendar year and the cumulative amount acquired and available for use at the end of the applicable calendar year, as compared to the amount the railroad stated would be acquired and available for use by the end of that calendar year and in total for PTC implementation, in the applicable revised PTCIP, as amended
- The basis for how the railroad is determining that the acquired spectrum is available for use by PTC radios (e.g., ensuring non-interference with other radios)

Spectrum Area or Location (E.g., county)	Spectrum Acquired and Available for Use (Owned/Leased) During Calendar Year	Cumulative Amount of Spectrum Acquired and Available for Use (Owned/Leased) at End of Calendar Year	PTCIP Year End Goal for Spectrum Acquired and Available for Use	Total Spectrum Required for PTC Implementation, as Reported in PTCIP
Spectrum Coverage Area or Location†: MTA02	7 channels	7 channels	2012	7 channels

†Note: To add rows for additional spectrum areas or locations, click on the blue "+" symbol at the bottom right-hand corner. Please be sure to first click anywhere inside the table to activate this function.

If this function is unavailable for your document, please manually add additional rows.

Please provide any additional narrative for Spectrum Acquisition below:

SCAX is attempting to procure additional spectrum to pool with the industry for future needs. Channels reported as available for use are shared spectrum under lease agreement with PTC220 LLC for a regional network using spectrum from the PTC220 LLC pool.

3. Quantity Update on Hardware Installation

Required content:

- Separated by each major hardware category and subcategory identified below, the amount of PTC hardware installed during the applicable calendar year and the cumulative quantity installed at the end of the applicable calendar year, as compared to the amount the railroad stated would be installed by the end of that calendar year and in total for PTC implementation, in the applicable revised PTCIP, as amended

3.1. Locomotive Status

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Locomotive (Apparatus)[1]				
On-board Computers (e.g., Train Management Computer)	2	N/A	111	112
Software For Train Management and other applications	2	N/A	111	112
PTC Displays	2	N/A	111	112
Event Recorders	2	N/A	111	112
Onboard Antennas and/or Transponder Readers	2	N/A	111	112
GPS Receivers	2	N/A	111	112

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[1] Railroads may elect to add categories or subcategories if more detail is desired.

FRA F 6180.166 (2-16)

Locomotive Radios – Primary Communications (e.g., 220 MHz radios)	2	N/A	111	112
Secondary Communications (e.g., cell or Wi-Fi communications) Equipment	2	N/A	111	112

Please provide any additional narrative for Locomotive Status below. If any of the information called for in Section 3.1 is unavailable to the railroad at the time it is completing and submitting this form, please insert "TBD" in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

SCRRA achieved its PTCIP goal of equipping the 109 Metrolink owned locomotives prior to 12/31/2015. During the PTC project, SCRRA leased three locomotives. Upon achieving system-wide RSD and committing to operating PTC on all trains and all lines, Metrolink decided to equip the leased locomotives and added them to the total with the 2016 PTCIP.

3.2.   Infrastructure/Back Office Status

Category / Installation Feature	Completed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Complete at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Infrastructure (Back Office)				
Dispatching Locations (installations complete)	0	N/A	2	2
Physical Back Office System Equipment (installations complete)	0	N/A	2	2

Are the Back Office Location(s) fully operable?	Yes
Are the Dispatching Location(s) fully operable?	Yes

Please provide any additional narrative for Infrastructure/Back Office Status below:

SCRRA has two fully functioning Dispatching and PTC Back office systems configured as a primary and secondary facility. Any changes to the railroad infrastructure are coordinated with the dispatching and back office systems. If a section of track is taken out of service for construction activity, it is returned to service in full PTC operation.

3.3. Installation/Territory Status

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.)[2]				
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: SCAX Rail Network Total				
Wayside Interface Units†	0	N/A	211	231
Communication Towers or Poles†	0	N/A	183	196
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	166	186
Base Station Radios†	0	N/A	22	22
Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes				

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[2] Each railroad should report information in a manner consistent with its PTCIP. That is, if a railroad monitors implementation of track segments by territory or subdivision, it should report that way.

FRA F 6180.166 (2-16)

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Valley Subdivision				
Wayside Interface Units†	0	N/A	51	51
Communication Towers or Poles†	0	N/A	47	47
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	46	46
Base Station Radios†	0	N/A	5	5
Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes				
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: San Gabriel Subdivision				
Wayside Interface Units†	0	N/A	42	42
Communication Towers or Poles†	0	N/A	41	41
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	39	39
Base Station Radios†	0	N/A	4	4

FRA F 6180.166 (2-16)

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Orange Subdivision				
Wayside Interface Units†	0	N/A	47	47
Communication Towers or Poles†	0	N/A	36	36
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	34	34
Base Station Radios†	0	N/A	5	5

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Ventura Subdivision				
Wayside Interface Units†	0	N/A	25	25
Communication Towers or Poles†	0	N/A	22	22
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	22	22
Base Station Radios†	0	N/A	6	6

FRA F 6180.166 (2-16)

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes				
Category / Installation Feature	**Quantity Installed During Calendar Year**	**PTCIP Year End Goal**	**Cumulative Quantity Installed at End of Calendar Year**	**Total Required for PTC Implementation, as Reported in PTCIP**
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: River Subdivision				
Wayside Interface Units†	0	N/A	42	42
Communication Towers or Poles†	0	N/A	26	26
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	21	21
Base Station Radios†	0	N/A	1	1
Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes				
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Olive Subdivision				
Wayside Interface Units†	0	N/A	3	3
Communication Towers or Poles†	0	N/A	3	3
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	3	3
Base Station Radios†	0	N/A	0	0

FRA F 6180.166 (2-16)

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Montalvo Subdivision				
Wayside Interface Units†	0	N/A	1	1
Communication Towers or Poles†	0	N/A	1	1
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	1	1
Base Station Radios†	0	N/A	1	1

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes

Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Shortway Subdivision				
Wayside Interface Units†	0	N/A	0	2
Communication Towers or Poles†	0	N/A	0	2
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	0	2
Base Station Radios†	0	N/A	0	0

FRA F 6180.166 (2-16)

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Perris Valley Subdivision				
Wayside Interface Units†	0	N/A	0	15
Communication Towers or Poles†	0	N/A	7	15
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	0	15
Base Station Radios†	0	N/A	0	0

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† Yes

Category / Installation Feature	Quantity Installed During Calendar Year	PTCIP Year End Goal	Cumulative Quantity Installed at End of Calendar Year	Total Required for PTC Implementation, as Reported in PTCIP
Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Redlands First Mile				
Wayside Interface Units†	0	N/A	0	3
Communication Towers or Poles†	0	N/A	0	3
Switch Position Monitors†	0	N/A	0	0
Wayside Radios†	0	N/A	0	3
Base Station Radios†	0	N/A	0	0

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?✝ Yes

✝Note: To add rows for additional territories and associated sub-components, click on the blue "✛" symbol at the bottom right-hand corner. Please be sure to first click anywhere inside the table to activate this function. If this function is unavailable for your document, please manually add additional rows.

Please provide any additional narrative for Installation/Territory Status below. If any of the information called for in Section 3.3 is unavailable to the railroad at the time it is completing and submitting this form, please insert "TBD" in the appropriate field and/or use this comment box to explain when such information will be available and when the railroad expects to submit it to FRA.

SCRRA completed installation of all WIU's and radios system-wide in 2013. System is part of a shared PTC radio network in MA02 with UPRR, BNSF and NCTD. SCRRA is in system-wide RSD and BNSF is operating PTCSP certified PTC within this shared regional network. Additional WIU's and radios are installed as part of Service extensions on new lines, and on a line acquisition. These are post 2015 implementations, beyond the scope of the 12/31/2015 PTCIP.

4. Quantity Update on Employees Trained

Required content:

- Separated by each employee category identified below, the number of employees trained during the applicable calendar year and the cumulative number of employees trained at the end of the applicable calendar year, as compared to the number the railroad stated would be trained by the end of that calendar year and in total, in the applicable revised PTCIP, as amended

FRA F 6180.166 (2-16)

Employee Category[3]	Number of Employees Trained During Calendar Year	PTCIP Year End Goal	Cumulative Number of Employees Trained at End of Calendar Year	Total Reported in PTCIP
Employees who Install, Maintain, Repair, Modify, Inspect, and Test the PTC System	55	N/A	130	130
Employees who Dispatch Train Operations	21	N/A	21	21
Train and Engine (Operations) Employees	66	N/A	66	60
Roadway Worker Employees	34	N/A	90	90
Direct Supervisors of the Above Employees	21	N/A	29	29

Please provide any additional narrative for Employee Training below:

SCRRA is operating system-wide RSD. All employees are trained. As the workforce changes through attrition, new employees receive training as part of their job training.

5. Progress on Implementation Schedule/Milestones

Required content:

- Describe the extent to which the railroad or other entity is not complying with the implementation schedule it provided in its revised PTCIP, as amended

SCRRA achieved system-wide PTC Implementation June 18, 2015

6. Summary Update of Challenges/Risks

Required content:

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[3] See 49 C.F.R. § 236.1041(a).

FRA F 6180.166 (2-16)

- Any update to the summary of remaining technical, programmatic, operational, or other challenges that the railroad or other entity provided in its revised PTCIP, as amended, including challenges with availability of public funding, interoperability, spectrum, software, permitting, and testing, demonstration, and certification
- Schedule Risk Updates (e.g., funding, technology, agreements)

Please provide Summary Update of Challenges/Risks below:

Challenges experienced include public funding supporting the maturation of the PTC software; interoperability coordination; acquiring spectrum; and interoperability coordination.

7. Progress on Revenue Service Demonstration (RSD) or Implementation

Required content:
- The total number of route miles on which PTC has been initiated for revenue service demonstration or implemented, as compared to the total number of route miles required to have a PTC system (see Section 1 Summary Table)
- Estimated start date (month and year) for RSD

Segment Identification[4]	Number of Route Miles in Segment	Status at End of Calendar Year *Current status of installation/track segment.* **_Choose one_:**	Estimated Start Date for Revenue Service Demonstration (if not already completed)
Segment *(add additional rows for segments as necessary):* Valley Subdivision	72.96	○ Not Started ○ Installing ○ Testing ⊙ Operational/Complete	6/14/2015

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[4] Segment identification should be consistent with segments listed in Section 3.3.

FRA F 6180.166 (2-16)

Segment (add additional rows for segments as necessary): San Gabriel Subdivision	55.44	○ Not Started ○ Installing ○ Testing ⊙ Operational/Complete	3/2/2015
Segment (add additional rows for segments as necessary): Orange Subdivision	41.85	○ Not Started ○ Installing ○ Testing ⊙ Operational/Complete	5/16/2015
Segment (add additional rows for segments as necessary): Ventura Subdivision	35.99	○ Not Started ○ Installing ○ Testing ⊙ Operational/Complete	4/20/2015
Segment (add additional rows for segments as necessary): River Subdivision	11.75	○ Not Started ○ Installing ○ Testing ⊙ Operational/Complete	6/14/2015
Segment (add additional rows for segments as necessary): Olive Subdivision	5.35	○ Not Started ○ Installing ○ Testing ⊙ Operational/Complete	5/16/2015
Segment (add additional rows for segments as necessary): Montalvo Subdivision	2.02	○ Not Started ○ Installing ○ Testing ⊙ Operational/Complete	4/20/2015
Segment (add additional rows for segments as necessary): Shortway Subdivision	1.68	○ Not Started ⊙ Installing ○ Testing ○ Operational/Complete	06/30/2016
Segment (add additional rows for segments as necessary): Perris Valley	20.40	○ Not Started ○ Installing ⊙ Testing ○ Operational/Complete	06/30/2016

14

| **Segment** *(add additional rows for segments as necessary):* Redlands | 1.41 | ○ Not Started
⊙ Installing
○ Testing
○ Operational/Complete | 12/29/2017 |

Note: To add additional rows, click on the blue "+" symbol at the bottom right-hand corner. Please be sure to first click anywhere inside the table to activate this function.

If this function is unavailable for your document, please manually add additional rows.

Please provide any additional narrative for Revenue Service Demonstration or Implementation below:

SCRRA is in Extended RSD system-wide since 6/18/2015. RSD operation began 3/2/2015. From the start of RSD (3/2/2015) through 2015 year-end SCRRA has over 30,000 successful RSD trips. As discussed in SCRRA PTCIP v2.0 Perris Valley and Redlands subdivisions are service expansion projects that are in construction. Also as discussed in the PTCIP, the Shortway Subdivision is dispatched by SCRRA and planned to be transitioned from BNSF ownership to SCRRA.

8. Update for Intercity or Commuter Rail Passenger Transportation (if applicable)

If this section is not applicable to your railroad, please mark N/A.

Required content (if applicable):

- For each entity providing regularly scheduled intercity or commuter rail passenger transportation, a description of the resources identified and allocated to implement PTC

Please provide Update for Intercity or Commuter Rail Passenger Transportation below, if applicable:

SCRRA is a commuter railroad with mixed traffic

9. Update on Interoperability Progress and Other Formal Agreements

Required content:

- For host railroads: provide updates to any agreements and key milestones for all tenant operations
- For tenant railroads: provide updates to any agreements and key milestones for all operations over tracks hosted by another railroad

Host and Tenant Railroads: Please provide a general update on interoperability in the textbox below.

Interoperability testing complete with Host/Tenants BNSF and UPRR.   Interoperable RSD is targeted for mid-2016. Discussions are underway with tenant Amtrak for qualification testing

Host Railroads Only: For each tenant, please provide additional tenant information below.

Tenant Identification *(Please add rows for additional tenants as necessary)*	Estimated Tenant Locomotive Fleet *(if the tenant does not have a separate PTCIP on file)*	Current Tenant Implementation Status *Choose one:*
Burlington Northern Santa Fe	BNSF PTCIP on file with FRA	○ Not Started ○ Installing ◉ Testing ○ Operational/Complete
Union Pacific Railroad	UPRR PTCIP on file with FRA	○ Not Started ○ Installing ◉ Testing ○ Operational/Complete
Amtrak	Amtrak PTCIP on file with FRA	○ Not Started ◉ Installing ○ Testing

FRA F 6180.166 (2-16)

		O Operational/Complete

Note: To add additional rows, click on the blue "+" symbol at the bottom right-hand corner. Please be sure to first click anywhere inside the table to activate this function.

If this function is unavailable for your document, please manually add additional rows.

10. Estimated PTC Safety Plan (PTCSP) Submission Date (if not already submitted)

If this section is not applicable to your railroad, please mark N/A.

PTCSP Submission Date
12/30/2015

Please provide any additional narrative for PTCSP Submission below:

SCRRA submitted V 1.0 on 6/30/2015. Through working discussions with the FRA, V 1.3 and V1.7 submitted on 07/02/2015 and 09/18/2015 respectively. Additional working discussions were held between SCRRA and FRA with a follow-up submission of V 2.0 on 12/30/2015.

11. Testing and Integration Efforts (if applicable, laboratory, integration, and revenue service demonstration)

Please provide Update on Testing and Integration efforts below:

RSD on entire property as indicated in PTCIP v2.0. Interoperability testing with BNSf and UPRR complete

12. Updated Information That FRA Can Use to Maintain Its Geographic Information System (GIS) Database – Segments Complete and Operable

In its annual progress reports, a subject railroad or entity may submit a geographic information system (GIS) shapefile to indicate where various rail segments that must have PTC are located, as long as it includes the following fields: (1) a PTC attribute field (coded with "Y" if line segment is to have PTC installed, otherwise left blank); (2) a SUBDIV attribute field (populated with subdivision name); (3) a MONTH attribute field (populated with the month in which PTC is to be installed); and (4) a YEAR attribute field (populated with the year in which PTC is to be installed). A railroad may submit this information by means other than shapefile format.

Please provide any additional narrative for GIS Information below:

Click here to enter text.

FRA F 6180.166 (2-16)