Annual PTC Progress Report

2015

New Mexico Rail Runner Express (NMRX)Railroad

FRA-2010-0045

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): New Mexico Rail Runner Express Railroad

Railroad Code: NMRX

Annual PTC Implementation Progress Report for: 2015

PTCIP Version Number of File with FRA (basis for goals stated): Version 6.0

Submission Date: 3/31/2016

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1. Summary

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

The New Mexico Department of Transportation (NMDOT), owner of the NMRX Railroad system, commenced negotiations with PTC 220 LLC on a PTC spectrum lease agreement for testing and for operation after having executed a confidentiality agreement with PTC 220 LLC in late 2014. NMDOT has also worked with Rio Metro Regional Transit District (RMRTD) during the 2015 calendar year in identifying and clarifying its responsibilities for PTC implementation as operator of the NMRX Railroad on NMDOT's behalf. This has resulted in the designation of RMRTD as the lead agency in implementing PTC on the NMRX system in March of 2016. RMRTD will be responsible for submitting PTC status quarterly and annual reports following this 2015 annual report.

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	0	0	0	18
Installation/Track Segments Completed	0	0	0	7
Radio Towers Fully Installed and Equipped	0	0	0	22
Employees Trained	0	0	0	88
Route Miles In Testing or Revenue Service Demonstration	0	0	0	96
Route Miles in PTC Operation	0	0	0	96

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
Belen-Isleta (Valencia County)	No Spectrum Acquired in 2015	No Spectrum Acquired in 2015	No Spectrum for 2015 Goal	Total Spectrum Amount not Identified Yet
Isleta-Abajo (Bernalillo County)	No Spectrum Acquired in 2015	No Spectrum Acquired in 2015	No Spectrum for 2015 Goal	Total Spectrum Amount not Identified Yet
Abajo-Hahn (Bernalillo County)	No Spectrum Acquired in 2015	No Spectrum Acquired in 2015	No Spectrum for 2015 Goal	Total Spectrum Amount not Identified Yet
Hahn-CP Ruiz (Bernalillo/Sandoval County)	No Spectrum Acquired in 2015	No Spectrum Acquired in 2015	No Spectrum for 2015 Goal	Total Spectrum Amount not Identified Yet
CP Ruiz – CP Madrid (Sandoval/Santa Fe County)	No Spectrum Acquired in 2015	No Spectrum Acquired in 2015	No Spectrum for 2015 Goal	Total Spectrum Amount not Identified Yet
CP Madrid – CP Alarid (Santa Fe - Santa Fe County)	No Spectrum Acquired in 2015	No Spectrum Acquired in 2015	No Spectrum for 2015 Goal	Total Spectrum Amount not Identified Yet

Please provide any additional narrative for Spectrum Acquisition below:

New Mexico Department of Transportation, owner of the NMRX Railroad system, is having ongoing discussions with PTC 220 LLC in order to negotiating contract language for a PTC Spectrum Lease. NMDOT began this process in September of 2014 but has encountered delays in negotiating a lease agreement that addresses the limitations of NMDOT as a public entity, mainly with liability and insurance requirements stated in the boilerplate agreement that NMDOT cannot legally abide by as a public entity. The issue has been brought to the PTC 220 LLC Management Committee who has yet to issue a process on how to best handle lease agreements with public entities. NMDOT is also looking into whether it is permissible by state law to include PTC 220 LLC as an additional insured in the existing NMRX insurance policy. This insurance policy had to be created through action of the New Mexico State Legislature and as such contains strict limitations. The total spectrum amount needed to effectively cover the NMRX system will be determined when a radio frequency spectrum analysis is completed for the NMRX system.

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	Locomotive (Apparatus) ¹								
On-board Computers (e.g., Train Management Computer)	0	0	0	18					
Software For Train Management and other applications	0	0	0	18					
PTC Displays	0	0	0	18					
Event Recorders	0	0	0	18					
Onboard Antennas and/or Transponder Readers	0	0	0	18					
GPS Receivers	0	0	0	18					
Locomotive Radios – Primary Communications (e.g., 220 MHz radios)	0	0	0	18					
Secondary Communications (e.g., cell or Wi-Fi communications) Equipment	0	0	0	18					

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

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.

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	0	0	1
Physical Back Office System Equipment (installations complete)	0	0	0	1

Are the Back Office Location(s) fully operable?	No
Are the Dispatching Location(s) fully operable?	No

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

Back Office Server System Equipment installation is expected to occur during calendar year 2018. This will occur at the existing NMRX railroad dispatching center in Albuquerque.

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 Territ	Infrastructure – Wayside Installations by Territory (i.e., Subdivision, District, Track Segment, Etc.) ²						
Identification of the Territory (i.e., Subdivision,	District, Track Segment,	Etc.)†: Belen-Isleta					
Wayside Interface Units†	0	0	0	8			
Communication Towers or Poles†	0	0	0	2			
Switch Position Monitors†	0	0	0	0			
Wayside Radios†	0	0	0	8			
Base Station Radios†	0	0	0	2			
Are all necessary communication backbone util installed and ready for operation?† No	lities for this track segme	nt (including fiber, copp	er, ground wiring etc.)				

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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.

dentification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Isleta-Abajo					
Wayside Interface Units†	0	0	0	7	
Communication Towers or Poles†	0	0	0	3	
Switch Position Monitors†	0	0	0	0	
Wayside Radios†	0	0	0	7	
Base Station Radios†	0	0	0	3	

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.)

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.)

dentification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Abajo-Hahn					
Wayside Interface Units†	0	0	0	10	
Communication Towers or Poles†	0	0	0	1	
Switch Position Monitors†	0	0	0	0	
Wayside Radios†	0	0	0	10	
Base Station Radios†	0	0	0	1	

installed and ready for operation?† No

installed and ready for operation?† No

dentification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Hahn - Ruiz					
Wayside Interface Units†	0	0	0	8	
Communication Towers or Poles†	0	0	0	3	
Switch Position Monitors†	0	0	0	0	
Wayside Radios†	0	0	0	8	
Base Station Radios†	0	0	0	3	

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.)

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.)

Identification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: Ruiz-CP Madrid					
Wayside Interface Units†	0	0	0	12	
Communication Towers or Poles†	0	0	0	6	
Switch Position Monitors†	0	0	0	0	
Wayside Radios†	0	0	0	12	
Base Station Radios†	0	0	0	6	

installed and ready for operation?† No

installed and ready for operation?† No

dentification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: CP Madrid – CP Hondo					
Wayside Interface Units†	0	0	0	11	
Communication Towers or Poles†	0	0	0	4	
Switch Position Monitors†	0	0	0	0	
Wayside Radios†	0	0	0	11	
Base Station Radios†	0	0	0	4	

dentification of the Territory (i.e., Subdivision, District, Track Segment, Etc.)†: CP Hondo-CP Alarid (Santa Fe)				
Wayside Interface Units†	0	0	0	4
Communication Towers or Poles†	0	0	0	2
Switch Position Monitors†	0	0	0	0
Wayside Radios†	0	0	0	4

0

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.) installed and ready for operation?† No

0

Are all necessary communication backbone utilities for this track segment (including fiber, copper, ground wiring etc.)

Base Station Radios†

installed and ready for operation?† No

2

0

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.

Installation of Wayside Equipment is expected to begin in late calendar year 2017.

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

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	0	0	0	8
Employees who Dispatch Train Operations	0	0	0	5
Train and Engine (Operations) Employees	0	0	0	34
Roadway Worker Employees	0	0	0	29
Direct Supervisors of the Above Employees	0	0	0	12

³ See 49 C.F.R. § 236.1041(a).

Please provide any additional narrative for Employee Training below:

Training of Employees for PTC is expected to occur in 2018.

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

A PTC Design Request for Proposals will potentially not be completed or released in the 2nd Quarter of CY 2016 as stated in the NMRX Revised PTCIP. The release may be delayed until the 3rd Quarter of CY 2016.

6. Summary Update of Challenges/Risks

Required content:

- 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:

NMDOT is experiencing several challenges with its PTC implementation schedule. Funding remains the largest issue, as PTC implementation costs are anticipated to equal five years' worth of NMRX maintenance costs and there is no dedicated local funding source for PTC. Funding avenues are being investigated. Complications have also arisen in our efforts to secure a radio spectrum lease due to insurance and liability requirements that NMDOT as a public entity cannot legally meet directly. NMDOT is working with PTC 220 LLC to attempt to resolve these issues as well as working with our risk management personnel to determine possibilities of how to meet PTC 220 LLC insurance requirements. NMDOT expects further challenges with technological development issues, the limited number of firms providing PTC expertise and services, limited product availability in available PTC technology and development, limited FRA staffing, and FCC environmental and historic preservation process requirements installing towers within tribal lands.

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): Belen-Isleta	17.0	Not StartedInstallingTestingOperational/Complete	June 2018

Segment Identification ⁵	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): Isleta-Abajo	11.2	Not StartedInstallingTestingOperational/Complete	May 2018

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

⁵ Segment identification should be consistent with segments listed in Section 3.3.

Segment Identification ⁶	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): Abajo-Hahn	4.7	Not StartedInstallingTestingOperational/Complete	August 2018

Segment Identification ⁷	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): Hahn-Ruiz	15.6	Not StartedInstallingTestingOperational/Complete	August 2018

Segment Identification ⁸	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): Ruiz-CP Madrid	25.5	Not StartedInstallingTestingOperational/Complete	September 2018

⁶ Segment identification should be consistent with segments listed in Section 3.3. ⁷ Segment identification should be consistent with segments listed in Section 3.3.

⁸ Segment identification should be consistent with segments listed in Section 3.3.

Segment Identification ⁹	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): CP Madrid – CP Hondo	17.9	Not StartedInstallingTestingOperational/Complete	October 2018

Segment Identification ¹⁰	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	2.0	O Installing	October 2018
necessary): CP Hondo – CP	3.9	O Testing	October 2018
Alarid (Santa Fe)		O Operational/Complete	

Please provide any additional narrative for Revenue Service Demonstration or Implementation below:		
Click here to enter text.		

⁹ Segment identification should be consistent with segments listed in Section 3.3. ¹⁰ Segment identification should be consistent with segments listed in Section 3.3.

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:

NMDOT commenced negotiations with PTC 220 LLC on a PTC spectrum lease agreement, both for testing and for operation, after having executed a confidentiality agreement with PTC 220 LLC in late 2014. NMDOT has also worked with Rio Metro Regional Transit District (RMRTD) during in identifying and clarifying its responsibilities for PTC implementation as operator of the NMRX Railroad on NMDOT's behalf. This has resulted in designating RMRTD as the lead agency in implementing PTC on the NMRX system in March of 2016. RMRTD will be responsible for submitting PTC status quarterly and annual reports following this 2015 annual report.

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 agreements have been executed with tenant railroads that will be equipped with Positive Train Control - BNSF Railway and Amtrak. Santa Fe Southern Railway has elected not to equip and as such will be restricted to medium speed and limited distance and limited number of trains per Part 236 Subpart I. Interoperability coordination/testing are not expected to occur until 2017 and 2018.

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

Tenant Identification (Please add rows	Estimated Tenant Locomotive Fleet (if the tenant	Current Tenant Implementation Status	
for additional tenants as necessary)	does not have a separate PTCIP on file)	<u>Choose one</u> :	
DNSE Bailway	DNCC has congrate DTCID	O Installing	
BNSF Railway	BNSF has separate PTCIP	O Testing	
		O Operational/Complete	

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 <u>Choose one:</u>
National Passenger Rail Corporation	Amtrak has separate PTCIP	Not StartedInstallingTestingOperational/Complete

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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	
December 31, 2017	

Please provide any additional narrative for PTCSP Submission below:
Click here to enter text.
11. Testing and Integration Efforts (if applicable, laboratory, integration, and revenue service demonstration)
Please provide Update on Testing and Integration efforts below:
Click here to enter text.
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 (code
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.

Public reporting burden for this information collection is estimated to average 38.41 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. According to the Paperwork Reduction Act of 1995, a federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with, a collection of information unless it displays a currently valid OMB control number. The valid OMB control number for this information collection is **2130-0553**. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection, including suggestions for reducing this burden to OMB's Office of Information and Regulatory Affairs, Attn: FRA OMB Desk Officer.