UNITED STATES OF AMERICA

NATIONAL TRANSPORTATION SAFETY BOARD

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SPECIAL INVESTIGATION REPORT * Accident No.: DCA21SR003
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Interview of: JAMIE PARRISH, Director if PTC Integration
               CSX Transportation

                         Via Microsoft Teams

                         Thursday,
                         October 14, 2021

APPEARANCES:

JOHN MANUTES, Rail Accident Investigator
National Transportation Safety Board

RUBEN PAYAN, Electrical Engineer
National Transportation Safety Board

<u>I N D E X</u>

1   I N T E R V I E W

2   MR. MANUTES: All right, good morning. My name is John

3   Manutes. I am an NTSB Rail Investigator. Today is October 14th,

4   2021, and we are meeting virtually via Microsoft Teams to conduct

5   an interview with Jamie Parrish, who's employed by CSX

6   Transportation.

7   This interview is in conjunction with the NTSB's Special

8   Investigation Report regarding PTT systems. The NTSB reference

9   number is DCA21SR003. This interview is being recorded. We will

10 transcribe the interview and provide a copy to you for your

11 review. The text transcription will be placed into the docket for

12 this report.

13   All right, before we begin, we'll go around the room --

14 Teams, and introduce ourselves. I'll start off, and then Ruben

15 will go and then Jamie will go.

16   Again, my name is John Manutes the spelling of my name is J-

17 o-h-n M-a-n-u-t-h-e-s, and I am the -- an NTSB Rail Accident

18 Investigator for this report.

19   Ruben?

20   MR. PAYAN: Hello, good morning. My name is Ruben Payan, R-

21 u-b-e-n last name P-a-y-a-n, and my title is Electrical Engineer

22 with the National Transportation Safety Board.

23   MR. MANUTES: Okay, and Jamie?

24   MR. PARRISH: Okay, my name is Jamie Parrish. Want me to

25 spell it?

1   MR. MANUTES: Yes, please.

2   MR. PARRISH: All right. J-a-m-i-e P-a-r-r-i-s-h, and I'm a

3 Director for PTC Integration for CSX.

4   MR. MANUTES: All right, thank you Jamie and Ruben. Just to

5 remind everybody that we're being recorded through a lot of

6 different devices here. Try to speak clearly for an accurate

7 recording for our transcriptionist. I hear everybody really well,

8 but if we start to have any trouble, you think we're breaking up a

9 little bit, let's make everybody aware of that and we'll slow down

10 and try and get a better connection.

11   Okay. I think that's it, Jamie, thank you very much for

12 meeting with us today. I'm going to pass this over to Ruben as

13 our technical expert. We might do a couple of rounds of

14 questions, and I think that's it. Appreciate it. Thank you.

15   MR. PAYAN: All right, well, thank you.

16   INTERVIEW OF JAMIE PARRISH

17   BY MR. PAYAN:

18 Q. Thank you, Mr. Parrish, for being with us. As we spoke

19 earlier, this interview -- or this special report that the NTSB is

20 working on is regarding the NIX (ph.) enhancements that PTC will

21 be looking at -- the iterations. One item in particular was

22 identified during the Carey, Ohio accident and in it -- regarding

23 PTC in restricted mode. Can you kind of walk us through what CSX

24 has looked at and what it has decided to implement to address

25 restricted speed operations in PTC territory?

1 A.   Sure, so as you're well aware, the switching operations take

2 place in yards and terminals along -- in addition to the liner

3 road when we had to stop and switch customers. And so with PTC,

4 we require PTC to be active whenever you're on the main line

5 operating your train. However, if you stop to switch a customer

6 or some type of liner road switching activities, we require our

7 train crews to put the PTC system in the restricted state. And

8 what that consists of it allows the crews to -- you know, move

9 from the main line to their location they would be switching, and

10 the PTC system operates -- and forces restricted speed only.

11   And so, with the Carey, Ohio incident in the recommendations

12 of the NTSB, what we've done here at CSX, we've taken multiple

13 steps, partially from a crew training perspective and then from

14 the managerial oversight perspective of identifying if, you know,

15 a restricted state is being used correctly. And so, I'll start

16 with the -- kind of the rules, changes, and/or the crew training

17 part.

18   So what we've done is we've implemented rules here at CSX

19 that tells our crews that if they are into switching activities,

20 that they are to go to a restricted state and then perform their

21 switching activities and immediately when they conclude their

22 switching activities, they are to exit the restricted state

23 feature and go back into the active state.

24   We've also included training in our face-to-face classes for

25 restricted state around the operating rule and how it's utilized

1 and how it should be utilized. We incorporated it in our training

2 in the ready center in Atlanta, Georgia. So for new crews that

3 are coming in and getting trained, they are receiving firsthand

4 that information regarding PTC; not only restricted state, but PTC

5 in general, plus a training around specifically the restricted

6 state and how it functions and its purpose and review of those

7 operating rules.

8   Our simulators that we have at CSX, they were updated to

9 include the latest versions of software that include the

10 restricted state functionality. So when our train crews are

11 required to go through training, they use a simulator and get a

12 hands-on perspective of restricted state. How it functions, and

13 again, an overview of the rules around from that perspective.

14   The operating rules have been included -- which includes the

15 restricted state rule, it is now on the PTC training tablets --

16 the tablets that our crew has, so they have it readily available

17 along with the other rules on their tablets.

18   Let's see here. And we also have -- we also put a bulletin

19 out that provides information around restricted state for job

20 briefings of when they should -- when our crews should and should

21 not use restricted state. So we've covered it from, you know,

22 engineers and crew members that are out actually operating the

23 trains; we've covered it from that perspective. You know, that

24 have been running the trains for PTC for quite some time, since

25 the beginning. We've covered it through our ready training -- our

1 ready center training for new crew members entering the workforce.

2   Let's see here. So that's what we've done from the training

3 perspective and our operating rules to ensure that our crews have

4 the necessary training and tools to perform their job correctly.

5   (Pause)

6   MR. MANUTES: I believe you're on mute, Ruben.

7   MR. PAYAN: Sorry, I was trying not to interrupt your --

8 speak over you while you were talking.

9   BY MR. PAYAN:

10 Q.   About software's to the actual PTC system? When we were

11 doing this investigation, we were told that the ITC committee was

12 considering time or distance or a combination time/distance

13 perimeter that would remind the engineer he was still in

14 restricted mode.

15 A.   Correct. We have enhanced the I-ETMS PTC system to include

16 just that, what you talked about, Ruben, a reminder basically to

17 the engineer that they are in restricted state and questions them

18 basically, hey, are you still supposed to be in restricted state?

19 And that functionality, really what it is when they transition to

20 the restricted state, when the train or engine that is, you know,

21 operating in restricted state, when the train moves five miles,

22 they'll get the prompt that basically reminds them -- it asks them

23 the question, are you still supposed to be in restricted state?

24 And that's the not actual verbiage, but that's kind of

25 paraphrasing it there. And if the engineer fails to answer the

1   prompt within 30 seconds, then PTC will provide a break

2   suppression and bring the train to a stop and then they have to

3   answer the prompt in order to recover the brakes.

4   So that's the logic that we put in to the PTC system to have

5   that reminder to the engineer, just in case they do forget they

6   are in restricted state, that they're in restricted state and it

7   gives them that kind of visual reminder that they're operating in

8   a restricted state. If they're not supposed to be, they can bring

9   their train to a stop and exit the restricted state back to

10 active.

11 Q.   So can you discuss the -- how the 30 seconds acknowledgment

12 thing was determined?

13 A.   Yeah, absolutely. So in the I-ETMS system, there are some

14 unfortunate delays that we have. Basically, if at five miles you

15 have to -- you know, if we provide some type of prompt to the

16 crew, you have to give them some type of time to answer that

17 prompt before you apply the brakes. And generally speaking, not

18 in every single case, but generally speaking, it's a 30 second

19 prompt. You know, there's some -- and I don't know the logic

20 behind my head, but -- off the top of my head, but there's a --

21 there were some studies that went behind choosing 30 second delay

22 when PTC was first implemented, and we utilized that same logic to

23 determine that the 30 second forceful delay would be sufficient

24 here to allow the engineer to understand what he's being prompted,

25 and to have time to answer that prompt safely without applying the

1 brakes. It would provide enough time for them to do what they

2 needed to do to answer the prompt, so the brakes weren't just

3 automatically put on the train.

4 Q. I see, okay. That kind of caught my eye because I'm used to

5 the cap-signals and way shorter acknowledgement there.

6 A. Right.

7 Q. So speaking of the ITC, can you kind of give us a brief

8 explanation of how CSX participates in the ITC committee?

9 A. We -- yes, sir. Absolutely. We participate in all the

10 (indiscernible) train control committee meetings. We're

11 considered a voting road. There's four voting roads: CSX, NS,

12 BSF, NUP. We participate with the vendors in all the meetings

13 with -- that includes railroads and vendors, and then we have some

14 meetings that are just railroad only and so we participate in

15 those.

16   We review all the necessary documents for I-ETMS, all the

17 enhancements, you know, all the different topics that come up in

18 regards to I-ETMS, and we provide our feedback, which the other

19 roads, gets -- you know, they have the opportunity to review our

20 feedback, and we all come to a consensus of what the right path is

21 for I-ETMS, for the industry, for the interoperability perspective

22 of it.

23 Q. Okay. And so is the ITC committee a part of the AR -- one of

24 the committees of the AR, or the AR just a participant of it, or

25 how does -- what's the interaction there?

1 A.   Yeah, so ITC is separate from the AR, but we're in a

2 transition period to where -- you know, many of the meetings that

3 we had or have that are considered ITC are being transitioned over

4 into AR meetings -- AR lead meetings. So we're in a transition

5 phase right now to where the vendors were kind of helping lead the

6 project in the beginning. Now, the AR and the roads are taking

7 some of that lead and kind of driving the direction of the PTC

8 functionality and program.

9 Q.   Okay. So the changes you describe with restricted mode, will

10 this be the same for all railroads that use I-ETMS?

11 A.   That is correct, yes.

12 Q.   Okay. Okay, very good. So switching channels here a little

13 bit, some of the other areas that we looked at (indiscernible)

14 with PTC, was restricted speed and the rear trains. Is CSX doing

15 any work on incorporating the rear of a train as a marker for PTCs

16 -- PTC systems?

17 A.   Yeah, I think this would be a kind of a topic from the

18 industry perspective that I was talking about.

19 Q.   Okay.

20 A.   -- from an industry perspective, but I will say at this time,

21 there are industry efforts of enhancing the EOT functionality with

22 GPS so we could incorporate that. Eventually when that technology

23 is available into the I-ETMS system or APTC system, that would

24 help enhance that function that you're speaking of.

25 Q.   Okay, all right, very good. We we're doing a -- an accident

1 in Grand Canyon in Wyoming on the Yuppie (ph.) and we did a lot of

2 work with the manufacturer, and they were telling us how the rear

3 -- in the train devices were already -- a lot of them were being

4 outfitted with GPS. Not for PTC, but just to keep track of them.

5 So I think the -- that's probably one of the first steps into

6 getting GPS at the rear of the trains. So I think the framework

7 is almost there.

8 A.   Correct. Yeah, they say it's a top priority here at CSX and

9 the industry and a topic -- one of the top topics that we're

10 trying to -- you know, I guess enhance so we can incorporate that

11 into the I-ETMS system to enhance that restricted speed

12 functionality.

13 Q.   Okay, that's good to hear. How about we had another

14 accident, similar accident, where PTC territory with a dispatcher

15 lifted the crew's work authority out there without them knowing

16 and the train was dispatched into that work zone without the RWP

17 worker's aware of that. And so we identified like, a single point

18 failure in the PTC system that allowed a dispatcher to remove a

19 safety work zone protection. Has CSX done any work in that area?

20 A.   From the industry perspective, there's an EIC, employee in

21 charge, program that's being worked on and we're heavily involved

22 in that as well. So as that functionality continues to be

23 developed we'll be looking to eventually incorporate that into I-

24 ETMS in our infrastructure to use that new functionality. I think

25 that's also a good topic right before, you know, that industry

1 discussion, I was saying that we're going to get set up for you

2 guys.

3 Q. Okay, that's good to know. Does this have anything to do

4 with -- FRA was telling us about a tablet for RWP workers where

5 they actually control their work zone and control train movements

6 in and out of that work zone; is that tied into that?

7 A. It is tied into that. I don't think every single detail has

8 been worked out at this time, but I would say yes, that's part of

9 that functionality.

10 Q. Okay, yeah, that's what they kind of hinted at too; it's

11 still in development. Let's see what else. The other area was --

12 and not so much for CSX but passenger trains that operate on CSX,

13 terminal stations, especially underground terminal stations, where

14 the end of the track is made a target instead of relying on just

15 restricted speed. They can actually set up a target for PTC to

16 avoid end of station overruns. Does CSX have any of those? Are

17 they doing any work on that?

18 A. That doesn't sound familiar based on the description that

19 you're providing. I guess if you had some more details and could

20 provide those to me, I could probably answer it a little better,

21 but how you're describing it, it doesn't sound familiar to the

22 operations we have here.

23 Q. Okay, yeah. This involved New York City -- two different

24 transit companies. They were operating on Long Island and I can't

25 remember the other one, but they come into New York City, their

1 tracks terminate at a terminal station and once they get into the

2 interlocking to go into the station, all the different platforms,

3 they switch off -- well, they don't switch it off, they just go to

4 restricted speed, which doesn't turn off the PTC, but it basically

5 just -- you're operating at restricted speed, so there's no

6 enforcement and we have the trains operated in and at the last

7 minute just -- they didn't stop at the platform and overran the

8 platform and hit the bumping block and into the station.

9 A. So we have not -- I'm not familiar with that specific

10 situation. So I really can't speak on it.

11 Q. No, understandable. I was just wondering if -- I know you

12 have some passenger trains operate (indiscernible) but it is a

13 pretty limited -- the exemptions that FRA issued for those

14 terminal stations, so I thought I'd ask.

15   Let's see. John, do you have any questions you want to

16 follow up on?

17   MR. MANUTES: Yeah. I think -- that's Ruben, this is John.

18 Jamie, I appreciate your time again, today. I know these are

19 long, sometimes.

20   BY MR. MANUTES:

21 Q. I think I've got two things I'd like to follow up on and I

22 guess I'll start in reverse order to keep it fresh in our minds.

23 Sort of in relation to the terminal exemptions that we saw in New

24 York City where a train could come in a terminal in restricted

25 mode but then still go off the end of the platform because the end

1 of the platform wasn't a target. I think we have areas in the

2 country, and you can tell me if I'm not right, where we have main

3 track exceptions -- exemptions for PTC on freight railroads, like

4 in tunnels where you might lose signal; whether it's communication

5 or location. Maybe under certain bridges or in cities where for

6 whatever reason PTC is not at this time manageable; whether it's

7 radio interference or GPS interference. Can you talk about main

8 track exceptions to PTC? How CSX manages that, what CSX is doing

9 to maybe -- if CSX is doing anything to maybe reduce the number of

10 miles of main track exception -- exemptions?

11 A.   I'm not familiar with that topic enough from a regulatory

12 perspective to provide you an answer. And I'm not sure if we're

13 talking two different subjects here. If we're talking you know,

14 where PTC is supposed to be ran and maybe I don't know if you're

15 asking if -- are you asking if we're running PTC where we're

16 supposed to be running PTC? Or are you talking main track

17 exceptions from the regulatory perspective?

18 Q.   Well, let me try and frame it different. So if -- my

19 understanding of main track exemptions is areas where maybe by

20 regulation you're supposed to run PTC but for whatever reason,

21 there's a good reason to not run PTC in that area. Is that a fair

22 assessment? Or no?

23 A.   From my understanding I can't speak fact-based on that.

24 Q.   Okay.

25 A.   I don't really have the answer to that. I think if we need

1 to start talking about main track exceptions then we would need to

2 get with our regulatory experts and discuss that. Mine's the more

3 technical --

4 Q.   Yeah.

5 A.   My area of expertise is the more technical side of it. I'll

6 tell you that where we are supposed to be running PTC, CSX does

7 run PTC unless there's some type of degraded state or something

8 that occurs based on the system. But, if we need to talk about

9 main track exceptions we probably need to get another individual

10 involved here so they can speak fact-based to you.

11 Q.   Okay, that's fair. Thanks, Jamie. What is -- I might come

12 back to that. So if I -- if I could just switch gears back to

13 Carey for a second. I wasn't on the Carey investigative scene,

14 so. Maybe, I can look at this from the point of view of somebody

15 that would read this transcript in the future and not know all the

16 facts. Can you help me put a bow and wrap up Carey? How do the

17 new CSX rules and procedures and training, if they were in effect

18 of the time of Carey, help prevent that accident? Can you sort of

19 walk me through a Carey if that situation were to come up again,

20 how your changes will prevent that accident?

21 A.   Yeah, so I think through the crew training, through the

22 operating roles, and keeping it in the forefront of the crews'

23 minds in regards to switching operations and how the system

24 functions just that in front of the crews knowledge and the

25 continuous development -- continuous training that we have put in

1 place with our simulators it really brings crew awareness around

2 it.

3   And then with the notification to the engineer that we put in

4 place to prompt the engineer if they are supposed to be in

5 restricted state that also puts it out there in front of the

6 engineer that hey, you're still running in restricted state, are

7 you supposed to be? With the prompt, you know the prompting, and

8 then the enforcement if they fail or elect not to answer that

9 prompt.

10   And then from a CSX perspective and Ruben this is one thing

11 we didn't really talk about here, is the managerial oversight that

12 the NTSB recommended today are for the number of roads. What

13 we've done is we created real time reports that we're getting

14 ready to begin utilizing that provides a real-time notification

15 that a crew is operating in a restricted state for a given period

16 of time and then we will either contact or have a conversation

17 with that crew member if we think that they're utilizing the

18 restricted state you know, not in compliance with our operating

19 rules. I think it's a combination of operating rules, our

20 training, the technology that we put into I-ETMS PTC system with

21 the prompting, and the brake suppression and the managerial

22 oversight notification that we have that will help prevent that.

23 Q.   All right, thanks. Thanks Jamie that helps a lot. So he --

24 so after leaving Carey, if it were today, he would have had a

25 message reminder that he had acknowledge at some point after

1 leaving Carey? But before?

2 A.   I don't have the distance in which --

3 Q.   What would that distance be today? Five miles?

4 A.   Yes. Today the way the system operates it would be five

5 miles, yes.

6 Q.   Okay. All right, got it, thank you. All right, Ruben I

7 don't think I have anything else. Jamie, I apologize I'm not

8 trying to play gotcha about where PTC's running and where PTC's

9 not, I'm just trying to understand what's -- what is out there,

10 and I know you guys are doing everything, you know, above the

11 board. I wasn't trying to be play gotcha, I can't think of a way

12 to rephrase that question that makes sense. So I'll leave it. I

13 appreciate your help.

14 A.   Yeah, no worries. No worries.

15   MR. PAYAN: Okay, I think that's it. That's all my

16 questions. That was very informative, and I appreciate that.

17 We'll look forward to talking to some ITC committee members and

18 then get a bigger perspective from the industry. But other than

19 that I think that's all the questions I have.

20   MR. PARRISH: Okay.

21   MR. PAYAN: One last before I let you go, Jamie. How about -

22 - I know this was never discussed in the original PTC design, but

23 is there any thoughts on CSX regarding PTC and grate crossing

24 safety?

25   MR. PARRISH: There is discussion around that, and we are

1 looking at different functionality that can be utilized around

2 grate crossing. That's not my area of expertise, that would be

3 our signal team's expertise area that they're focusing on. So

4 I'll just say this that we are looking into that technology.

5 Where we're at with it, I'm not one hundred percent sure at this

6 time.

7   MR. PAYAN: Okay. Do you know is it more centered towards

8 train communication or railway notification? Do you know that?

9   MR. PARRISH: I don't think that detail has been worked out

10 at this time. It's, yeah, I would be speculating at this time.

11 But there is -- there are projects going on around that. And I'm

12 not sure exactly which ones, the details around each one of those

13 projects. But I can get you the contact with the individual that

14 would -- can provide that information if needed.

15   MR. PAYAN: Yeah, no that'd be great. That helps a lot.

16 That's all I have.

17   MR. MANUTES: Yeah, one more. Just -- Jamie I appreciate

18 your time, and this is John and I just wanted to ask, is there

19 anything that you're most excited about for the next five years of

20 PTC? Or is there anything that we blatantly missed that you want

21 to make sure that you tell us that we can sort of continue to

22 advocate for on the PTC side in the next couple of years?

23   MR. PARRISH: You know, I think enhancing the system is

24 something that we're always kind of excited about. Making it

25 better from a safety perspective and from my operational

1 perspective and you know, ensuring that we're following the

2 regulations and rules that are put in place for us to follow,

3 that's you know, kind of always exciting to see play out. I think

4 that in the meeting that we're going to set up for you around the

5 enhancements of PTC, the future state of PTC, I think you're going

6 to be able to see there's many enhancements coming that's good for

7 the industry and good for the PTC system so, I think that you guys

8 will be pleased with some of the enhancements and technologies

9 coming in the future.

10   MR. MANUTES: Appreciate it. No, I don't have any -- Jamie

11 this is great. I'm excited about it. I think definitely in the

12 future, it's getting really exciting. So I don't have any other

13 questions. Ruben?

14   MR. PAYAN: No, that's all I had. I appreciate your time,

15 and this has been very informative. I guess we can end the

16 interview here but don't hang up Jamie.

17   MR. MANUTES: Jamie I'm going to stop the recording, but yeah

18 don't hang up on us just yet.

19   MR. PARRISH: Okay.

20   (Whereupon, the interview was concluded.)

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CERTIFICATE

This is to certify that the attached proceeding before the

NATIONAL TRANSPORTATION SAFETY BOARD

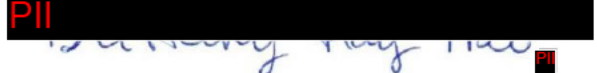IN THE MATTER OF: SPECIAL INVESTIGATION REPORT
                           Interview of Jamie Parrish

ACCIDENT NO.:   DCA21SR003

PLACE: Via Microsoft Teams

DATE: October 14, 2021

was held according to the record, and that this is the original,

complete, true and accurate transcript which has been transcribed

to the best of my skill and ability.

_____
Brittany Hay
Transcriber