

SECTION 305 TECH SUB COMM

MINUTES

APRIL 14, 2022 3:00PM EASTERN

CONFERENCE CALL

FACILITATOR	<i>Joe Paul, Vice Chair, NGENC Technical Subcommittee</i>
ATTENDEES	Core Team Members: Joe Paul for George Hull, Jeffrey Gordon, Gurleen Boparai, Ray Hessinger, Jennifer Bastian, Curtis McDowell for Matthew Simmons, Ed Engle, Troy Hughes, Mike Jenkins, Art Peterson, Tammy Krause, Steve Hewitt, Rebecca Anger Industry Members: Richard Stegner, Josh Coran, James Campbell, Dave Warner, Kevin Myles, Joanna Hallisey, Marko Kroenke, Leo Sanchez, Steve Ojalvo, Richard Curtis, Paul Arnone, William Luebke, Kevin Sudano, James Michel, Paul Jamieson, Jeff Schultz, Ed Golitko, Bill Saddler, Rich Bowie, Jack Madden
ABSENTEES	<i>George Hull, Matthew Simmons, Jason Biggs, Marci Petterson, Blair Slaughter, Larry Salci, Mike Kraft, Mike Murray, Tarek Omar, Melissa Shurland, Rebecca Anger</i>

DISCUSSION/DECISIONS MADE

1.

Technical subcommittee Vice Chair Joe Paul facilitated the meeting in the absence of the Chair George Hull, Amtrak, and called the meeting to order asking Steve Hewitt to call the roll of core team members.

After calling the roll, Steve Hewitt confirmed the presence of a quorum.

As always, industry participants are asked to email a notification of their attendance to Steve Hewitt at shewitt109@aol.com.

2.

Review Action Items – Steve Hewitt, NGENC Program Manager:

2022 NGENC Background educational document:

The 2022 NGENC two-pager is available in hard copy by request of Steve Hewitt at shewitt109@aol.com

To date 125 hard copies and 427 electronic copies have been distributed.

Maintaining Industry Participation List: There are just over 200 industry participants.

Any updates or changes to this list should be sent to Steve Hewitt at shewitt109@aol.com.

Connecticut DOT Rail Car Procurement:

This procurement remains in the "cone of silence".

University of Nebraska High Speed wireless study as of 3-31-22:

Update provided by Hamid Sharif on 3-31-22:

We have been investigating 160 MHz for rail applications. We have designed and implemented a detailed analytical and computer simulation model for 160 Mhz with the capabilities and constraints of this band. One of our objectives is to come up with a RF transceiver design for maximum end to end throughput. In doing so, we have gone through detailed channel models and parameters such as two ray ground reflection, path loss, Doppler effect, and other signal distortions to evaluate the performance of 160Mhz channel.

We have presented our findings in two papers with the following titles:

- 1) *Modeling and Performance Evaluation of an RF Transceiver System at 160 MHz for Railroad Environments*
- 2) *Maximizing RF Communications Throughput for Railroad Applications at 160 MHz*

These papers are accepted and will be presented at the 2022 Joint Rail Conference Railroad Engineering scheduled for April 20 – 21 - (<https://event.asme.org> > Joint-Rail-Conference).

For questions, please contact:
Hamid Sharif
hsharif@UNL.edu

Next Update: - 4-28-22

**3.
Approval of the Minutes from 3-31-22:**

On a motion by Jennifer Bastian, Illinois DOT, and a second by Ed Engle Iowa DOT, the minutes from 3-31-22 were approved as submitted.

**4.
Update: Multi-State Railcar Procurement as of 4-14-22 – Gurleen Boparai, Caltrans:**

Gurleen Boparai, Caltrans, provided the following update for inclusion in the 4-14-22 meeting minutes:

The Cab Carshell final design has been approved and the cab structures are in production. Remaining Cab Car FDRs are in the final submittal and review stage. Cab Car Safety Appliance documents have been sent to the FRA for review, and the Cab Car Clearance information has been approved by Amtrak. IDOT Café Car FDRs are in the closure stage and Galley open items are being addressed.

The Cab Car Collision and Corner Post Appendix F testing is complete, and the test report has been submitted for review. The cab car compression test report review is complete, and the revised test report is in review. FAIs will continue for café and cab car subsystems.

105 cars are in production or have been produced at Siemens Sacramento Facility. Revenue Service relevant FMIs are in progress and open items related to Conditional Acceptance are being addressed.

**5.
Update: Metro-North Rail Dual Mode Locomotive Procurement – Ray Hessinger, NYSDOT:**

Ray Hessinger, NYSDOT reported that Metro-North and Siemens continue with Preliminary Design Review and items are being closed as they wrap it up.

**6.
Update: Amtrak Vehicle Procurements – Joe Paul, Amtrak:**

On 4-14-22, Joe Paul reported:

On the Charger Locomotives – there are 4 units in service on the Chicago to Seattle line. Another unit is in Seattle for training. 3 or 4 units are in Wilmington for commissioning, and another is shipping out of Sacramento in a week or so. After that, there will be a hold while they resolve some access issues.

On the Acela – there was no update provided

On the Intercity Trainset (ICT) -Design Review continues.

**7.
Update: Working Group on Weight Issues – Jeff Gordon, FRA:**

The working group has not met since the last update.

The next meeting will take place on 5-11-22 from 11:00am-Noon Eastern.

Anyone wishing to participate on the working group contact Jeff Gordon.

**8.
Update: Document Control Management – Tammy Krause:**

On 4-14-22, Tammy Krause provided the following update for inclusion in today's minutes:

- *Status – Technical writing – Finalizing Updated DMU Specification; Should be available by Monday (4-18-22).*
- *Status - Kick off – Bi-Level Specification Update; I have started reviewing the changes that have been made to the Single Level specification for relevance to the Bi-Level. I also ask everyone to start reviewing the Specification for any updates/improvements that they notice.*
- *Status: Organizing the Carbody Materials working group; The Materials working group had the first meeting yesterday. So far, we have 6 volunteers, and I am hoping for more. We discussed the purpose of the group, and our initial task is to review the carbody sections of the Single Level and Bi-Level specifications to choose one document as our starting point. The next meeting is scheduled for 4/27 at 3:00pm. If you are interested in participating, please send me an email and I will add you to the invite list. We hope to have a team leader by the next call.*
- *Status: Electronics on Trains working group; Ken Martin of Sharma Associates will be taking over the leadership of this working group and they are planning to schedule a meeting either the last week of April or the first week of May.*
- *Discussion: Technical SC consideration of DCR to add the new DCR Form to PRIIA 305-100 NGENC Procedures and to provide the Document Control Manager (DCM) the ability to update advisory group member changes as they occur. The current DCR form is difficult to use, and the proposed form is much more user friendly. It will be easier to process the data and manage it in the Excel spreadsheet form. The current form is in Adobe, which I do not have access to. The Technical Writer does not have access to it either.*

Discussion:

Jeff Gordon, FRA, commented that he had no problem with the proposed DCR revision, but suggested that it be formatted so that each field be its own cell. He also recommended that Tammy Krause (as Document Control Manager – DCM) lock it so that only the fields she wants filled in are filled in.

He also added that she should make it so that she can copy what is filled in and sent to her and paste it to the full spreadsheet.

Jeff noted that his recommendations are meant to simplify it.

He added that there is not any mention on the form of Major/Minor or Urgent. Tammy will add these in.

Jeff also suggested that after the working groups have provided their input, it should be noted whether a change was accepted, accepted as amended, or rejected and he advised that she use a pull-down list.

The intention of this new form is that it be one that is easy to use. The previous PDF version was not.

Paul Jamieson also had similar comments and asked if the document would be available on the website. Steve Hewitt stated that it would be available and accessible on the site once it is approved.

Tammy agreed with the recommendations and will revise as suggested.

9. Consideration of approval of a DCR to add the new DCR form to PRIIA 305-100 NGENC Procedures with the recommended revisions as suggested, and to provide the Document Control Manager (DCM) with the ability to update advisory group member changes as they occur – Joe Paul:

A motion to approve was offered by Ed Engle, Iowa DOT and seconded by Ray Hessinger, NYSDOT.

With no further discussion forthcoming, Steve Hewitt suggested that this be a roll call vote for the record, and Joe Paul agreed and asked Steve to conduct the roll call vote on the motion:

Joe Paul, Amtrak – yes
Jeff Gordon, FRA – yes
Gurleen Boparai, Caltrans – yes

Curtis McDowell for NCDOT – yes
Ray Hessinger, NYSDOT – yes
Ed Engle, Iowa DOT – yes
Jennifer Bastian, IDOT – yes
Troy Hughes, MODOT – yes
Mike Jenkins, Oregon DOT – yes

With a quorum having been established and all voting members present voting in the affirmative, Joe Paul confirmed that consensus was achieved, and the motion was approved. The revised form will be provided to Steve Hewitt and the motion as approved will be sent to the Executive Board for its consideration of adoption on the next Executive Board call 5-3-22.

**10
Adjourn:**

With no other business forthcoming on today's call, Joe Paul adjourned the meeting at about 3:34pm Eastern.

Next Tech subcommittee Call: 4-28-22– 3:00pm Eastern

Decisions and Action Items

2022 NGEC Backgrounder educational document:

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Maintaining Industry Participation List: There are about 200 industry participants.

There have been several updates/changes to the list that have been provided to Steve Hewitt and those changes were made. Any further updates or changes should be sent to Steve Hewitt at shewitt109@aol.com.

Update: Multi-State Railcar Procurement:

Gurleen Boparai, Caltrans, provided the following update for inclusion in the 4-14-22 meeting minutes:

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Next Update – 4-28-22

Document Control Update:

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updates/improvements that they notice.

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Decisions/Action:

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With a quorum having been established and all voting members present voting in the affirmative, Joe Paul confirmed that consensus was achieved, and the motion was approved. The revised form will be provided to Steve Hewitt and the motion as approved will be sent to the Executive Board for its consideration of adoption on the next Executive Board call 5-3-22.

Carbody Materials Working Group:

On 3-31-22, it was decided that a working group would be established to address carbody materials. Tammy Krause will schedule a call – for around 4-13-22 to organize the group and to ask for a volunteer to serve as team leader.

On 4-14-22, Tammy Krause reported that the working group has been established and met on 4-13-22. So far, there are 6 members on the working group (Paul Jamieson volunteered to join during today's Tech subcommittee call). On the next call, it is anticipated that a team leader will be named.

The next meeting is scheduled for 4-27-22 at 3:00pm Eastern. Additional members are encouraged - contact tammy Krause if interested.

Next Update – 4-28-22

Update: Electronics on Trains Working Group:

On 4-14-22, Tammy Krause reported that Ken Martin, Sharma, and Associates has been named as the new Team Leader taking the place of David Brabb who has moved on. A meeting will be scheduled in the near future.

Working Group on Weight Issues as of 4-14-22:

If interested in participating on this working group, contact Jeff Gordon at Jeffrey.gordon@dot.gov or Steve Hewitt at shewitt109@aol.com

Next Update – 5-12-21

University of Nebraska High Speed wireless study as of 3-31-22:

The following update was provided by Hamid Sharif on 3-31-22:

We have been investigating 160 MHz for rail applications. We have designed and implemented a detailed analytical and computer simulation model for 160 Mhz with the capabilities and constraints of this band. One of our objectives is to come up with a RF transceiver design for maximum end to end throughput. In doing so, we have gone through detailed channel models and parameters such as two ray ground reflection, path loss, Doppler effect, and other signal distortions to evaluate the performance of 160Mhz channel.

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*For questions, please contact:
Hamid Sharif
hsharif@UNL.edu*

Next Update: - 4-28-22

Metro North Dual Mode Locomotive Procurement –4-14-22

Metro-North and Siemens are wrapping up the Preliminary Design Review phase.

Next Update: 5-12-22

Connecticut DOT Rail Car Procurement:

This procurement remains in the “cone of silence” period.

Next Update: As appropriate

Amtrak Equipment Procurement as of 4-14-22:

On the Charger Locomotives – there are 4 units in service on the Chicago to Seattle line. Another unit is in Seattle for training. 3 or 4 units are in Wilmington for commissioning, and another is shipping out of Sacramento in a week or so. After that, there will be a hold while they resolve some access issues.

On the Acela – there was no update provided

On the Intercity Trainset (ICT) -Design Review continues.

Next Update: 5-12-22

Next call 4-28-22

ATTACHMENTS



Our Vision: The NGEC will provide national leadership in standardization, acquisition, and management of passenger rail equipment.

PRIIA Section 305 Tech Sub Committee Meeting

Web Ex video/audio information:

By Computer: <https://stephenhewitthewittconsulting.my.webex.com/meet/shewitt109>

by phone: 1-415-655-0001

Access code: 126-073-1531

4-14-2022

The agenda for the meeting is below:

- | | |
|--|-----------------|
| 1. Roll Call | Steve Hewitt |
| 2. Review Action Items | Steve Hewitt |
| 3. Approve Minutes from 3-31-22 | Joe Paul |
| 4. Update: Multi-State Rail Car Procurement | Gurleen Boparai |
| 5. Update: Metro North Dual Mode Locomotive Procurement | Ray Hessinger |
| 6. Update: Amtrak Vehicle Procurements | Joe Paul |
| 7. Update: Working Group on Weight Issues | Jeff Gordon |
| 8. Document Control Management | Tammy Krause |
| <ul style="list-style-type: none">- Status – Technical writing – Finalizing Updated DMU Specification- Status - Kick off – Bi-Level Specification Update- Status: Organizing the Carbody Materials working group- Status: Electronics on Trains working group- Discussion: Tech SC consideration of DCR to add the new DCR Form to PRIIA 305-100 NGEC Proceduresa and to provide the Document Control Manager (DCM) the ability to update advisory group member changes as they occur. | |
| 9. Consideration of approval of DCR to add the new DCR Form to PRIIA 305-100 NGEC Procedures and provide the Document Control Manager (DCM) the ability to update advisory group member changes as they occur. | Joe Paul |
| 10. Other | All |
| 11. Adjourn | Joe Paul |

Next – meeting 4-28-22