

# SECTION 305 TECH SUB COMM

MINUTES

MARCH 18, 2021 3:00PM EASTERN

CONFERENCE CALL

<b>FACILITATOR</b>	<i>George Hull, Chair, NGEC Technical Subcommittee</i>
<b>ATTENDEES</b>	<b>Core Team Members:</b> <i>George Hull, Joe Paul, Jeffrey Gordon, Curtis McDowell for Matthew Simmons, Jon Mullin for Momo Tamaoki, Jason Biggs, Ray Hessinger, Troy Hughes, Jennifer Bastian, Marci Petterson, Steve Hewitt, Michael Kraft, Art Peterson, Mike Murray, Blair Slaughter, Tarek Omar, Dave "Emeritus" Warner</i> <b>Industry Members:</b> <i>Dick Bruss, Paul Jamieson, Josh Coran, Jack Madden, Rich Stegner, Steve Finnegan, Scott Witt, Kevin Sudano, James Michel, Stephen Mark, Lorenzo Reffreger, Marco Weber, Rich Bowie, Narayana Sandaram, Kevin Myles, William Saddler, Donald Sandala, Darrell Smith, Steve Morrison, Ed Golitko, Martin Bloedt, Richard Curtis, Paul Arnone</i>
<b>ABSENTEES</b>	<i>Mathew Simmons, Mike Jenkins, Edward Engle, Melissa Shurland, Larry Salci, Oscar Bermudez</i>

## DISCUSSION/DECISIONS MADE

<p><b>1.</b> George Hull, Amtrak, called the meeting to order and asked Steve Hewitt to call the roll of core team members.</p> <p>After calling the roll, Steve Hewitt confirmed the presence of a quorum.</p> <p><b>As always, industry participants are asked to email a notification of their attendance to Steve Hewitt at <a href="mailto:shewitt109@aol.com">shewitt109@aol.com</a>.</b></p>
<p><b>2.</b> <b>Review Agenda – Steve Hewitt – NGEC Program Manager:</b></p> <p>Steve Hewitt provided a brief overview of today’s meeting agenda.</p>
<p><b>3.</b> <b>Review Action Items – Steve Hewitt, NGEC Program Manager:</b></p> <p><b>2021 NGEC Backgrounder educational document:</b></p> <p>The 2021 version of the NGEC two-page backgrounder/educational document has been released and is available electronically or in hard copy by request - contact Steve Hewitt at <a href="mailto:shewitt109@aol.com">shewitt109@aol.com</a></p> <p><b>Maintaining Industry Participation List:</b> There are approximately 200 industry participants.</p> <p>Since the 2021 NGEC Annual Meeting, there have been several new members joining from the industry. We welcome them to the NGEC and thank them for their interest and participation.</p> <p>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 <a href="mailto:shewitt109@aol.com">shewitt109@aol.com</a>.</p> <p><b>Status Update: The Passenger ECP Final Test Report:</b></p> <p>Update: On 11-12-20, Paul Jamieson provided the following update on the ECP Final Test Report – Steve Hewitt read it into the record:</p> <p><i>"The Passenger ECP Final Test Report has been submitted to the FRA observer and docket. The docket reference is FRA-2015-0078 for all information that was formally submitted to the FRA. Draft ECP regulatory language was submitted to the FRA observer and the text will appear in a future NPRM.</i></p> <p><i>NGEC technical specification’s recommended changes will be submitted separately for inclusion in future revisions. These changes will include the two performance standards APTA PR-M-S-20-17 Emulation Performance Requirements and APTA PR-M-S-21-17 ECP Passenger Performance Requirements are issued and available of the APTA website <a href="https://www.apta.com/research-technical-resources/standards/passenger-rail-equipment-safety-standards/">https://www.apta.com/research-technical-resources/standards/passenger-rail-equipment-safety-standards/</a> . An APTA PRESS standard to address ECP Ready requirements, as addressed in the NGEC technical specification, will be issued as APTA</i></p>

*PR-M-030-21, and is in final publication preparation.*

*APTA will be issuing a standard to address passenger vehicle piping requirements. This standard will be APTA PR-M-S-029-21 and is in final publication preparation."*

If anyone has any questions, please feel free to contact Paul at:

Paul E Jamieson, PE Retired  
Mobile: 18643236956  
jamiespe@outlook.com

Paul also recommended that the NGEC, as one of the project sponsors, may want to post this report on the website.

**Establish process and timeline for Tech SC review of Access Board NPRM Accessibility Guidelines and compare with current NGEC Specifications**

On 8-20-20, Melissa Shurland, FRA, reported that the comment period ended on 7-14-20 (after having been extended to that date) and the Access Board is now processing those comments received. Melissa stated, "we are in a holding pattern to see what the comments were and what the Access Board's disposition of them will be." Melissa will keep the NGEC technical subcommittee informed as the process is completed.

In January 2021, Melissa Shurland informed Steve Hewitt that there still was no update from the Access Board on this activity, and she would not be providing a presentation at the Annual Meeting.

**Next Update: As appropriate**

**Electronics on Trains:**

David Brabb provided the following update – read into the record by Steve Hewitt – on the activities of the Electronics on Trains working group as of 1-26-21:

*On 1-26-21, we had a call with a fairly good-sized group today (for us) at 3pm eastern. We are looking at finishing up the first revision to 305-919 hardware spec., by moving appropriate firmware info to that spec from 305-920. We will reach out to you when we are ready to follow the appropriate procedure for issuing a revision.*

*We do have a couple of new team members that are eager to share lessons learned and what/how they are doing with some of their designs/ builds. The two new gentlemen are Kevin Sudano (Transit Consultant) and Fabio Cussigh of VDS Rail in Italy. Ken Martin (Sharma) and I plan to meet with them in a separate call, in early February 2021 to gather whatever information that they want to share. Of course, all information gathered will be shared/vetted with our group.*

*The next NGEC Electronics call was scheduled for March 2nd at 3pm eastern.*

**Next Update – 4-1-21**

**University of Nebraska/FRA High Speed Wireless Study – Hamid Sharif-Kashani:**

Hamid Sharif-Kashani provided a brief update on the status of the current phase of the University of Nebraska/FRA High-Speed Wireless Study. The current focus is on computer modeling and performance measures for rail application. They are focusing this effort on 160 Mega Hertz – they will build a model for that frequency and look later at other frequency bands.

**Next Update: 4-1-21**

**3. Approval of the Minutes from 2-4-21– George Hull, Amtrak:**

On a motion offered by Matthew Simmons, NCDOT, and seconded by Jennifer Bastian, IDOT, the minutes from 2-4-21 were approved as presented.

**4. Summary Overview/Reaction NGEC Annual Meeting 2-23-21 – George Hull/Steve Hewitt:**

George Hull opened the discussion stating it was "a good meeting" and he has "heard no complaints".

Steve Hewitt provided an overview/summary of what was the NGEC's 11<sup>th</sup> Annual Meeting held "virtually" on 2-23-21 with

approximately 104 in attendance.

Along with the NGEC Chairman's Report, there were also updates provided from Amtrak Government Affairs, FRA, the FASC and Treasurer's Report, the Technical subcommittee, the Technical working group on vehicle weights, Document Control, and on the five ongoing procurements and deployments.

All PowerPoint Presentations given during the Annual Meeting Have been posted to the NGEC website [www.305NGEC.org](http://www.305NGEC.org) and were also distributed along with the minutes to NGEC members.

Key Decisions/actions taken included:

Acceptance of the NGEC Treasurer's Report provided by Tim Ziethen, Amtrak

Adoption by the Executive Board of PRIIA 305-200 Recommended Practices as previously approved and submitted by the NGEC Equipment and Acquisition and Ownership working group. This will be a living document which will be periodically revised/updated as appropriate.

Filling Vacancies:

Chairman Hessinger appointed Ed Engle, Iowa DOT, to fill vacancies that occurred due to the retirement of Phil Meraz from Iowa DOT. Ed is hereby appointed to serve on the Technical subcommittee and on the Trainset and Single Level Rail Car Specification Review Panels.

The Chair also noted that Brent Thompson, WSDOT, was retiring from state service and had resigned as first Vice Chair of the NGEC FASC. It will be up to FASC Chair Tim Ziethen to appoint a first Vice Chair.

WSDOT has expressed its intention to remain on the subcommittee and at present Jason Biggs will serve as its voting member.

Ray also reported that Michael Lestingi, FRA has been moved to the front office to serve as Acting Executive Director of the FRA, and in that capacity will not serve on the NGEC. FRA has appointed Jeff Gordon to serve as its voting member of the Executive Board and Jeff will also retain his current positions within the NGEC.

Ray Hessinger, NYSDOT, and Chair of the NGEC Executive Board concurred with Steve's overview and noted that he had summarized it well.

## **5.**

### **Update: Multi-State Railcar Procurement as of 3-18-21 – Jon Mullins for Momo Tamaoki, Caltrans:**

On 3-18-21, Jon Mullin – representing Momo Tamaoki, Caltrans, provided the following update:

*Design review for the standard coach is complete. The Cab Car structure FDR is complete and the structural test plans are being coordinated with Caltrans, Siemens and FRA with compression testing planned for April. The Cab Car IDR phase is complete and FDR meetings are scheduled to resume in April. IDOT Café Car reviews are complete and open items are being addressed.*

*IDOT Business Class table testing occurred February 16<sup>th</sup> in Spain. NEC testing for standard coach is complete and the report is accepted by FRA. Caltrans 238.111 testing is complete, and the report has been submitted to Amtrak and FRA. IDOT 238.11 testing and the report is in the submittal stage.*

*75 cars total are in production or have been produced at Siemens Sacramento Facility. There are currently twelve Caltrans cars at the Stockton Facility and eighteen IDOT cars in Chicago. Additional Caltrans and IDOT cars are scheduled to ship in March or April. The initial consists for Caltrans and IDOT are being prepared for Conditional Acceptance and revenue service.*

## **6.**

### **Update: Metro-North Dual Mode Locomotive Procurement – Ray Hessinger:**

Ray Hessinger reported that Metro-North held its "kick-off" meeting with Siemens following award of the contract. They are just getting started with discussions on various design topics.

## **7.**

### **Update: Connecticut Rail Car Procurement – Marci Petterson, CtDOT:**

Marci Petterson reported that the procurement is in the "cone of silence" period.

**8.****Update: Amtrak Vehicle Procurements – George Hull, Amtrak:**

CAF: Progress continues – with 2 more sleeper cars complete – there are 7 left.

Charger Locomotive – Also continues to progress well. The first unit is in testing and it is going well.

AmFleet replacement – is in the “cone of silence” period with discussions continuing with vendors.

Acela Express 21 (AE21) testing continues – they are addressing some modeling issues and evaluating schedule impacts.

**9.****Overview DRAFT TSSSA Primer – George Hull:**

George Hull reported that Mike Kraft, Amtrak Mechanical, has provided him with a DRAFT TSSSA primer which he has started to review. George hopes to complete his review soon and get the DRAFT to Tammy Krause.

**10.****Update: Document Control Management as of 3-18-21 – Steve Hewitt for Tammy Krause:**

On 3-18-21, Tammy Krause provided the following update for inclusion in the minutes (read into the record by Steve Hewitt):

*I have three items to update on Document Control;*

- *The Equipment Acquisition and Ownership Best Practices Document has been signed and will be added to the website as soon as I get the final version back from Camren.*  
**Note from Steve Hewitt – This document, once finalized, will be available upon request, just as the other NGEC documents are. It will be posted as part of the PRIIA Document list on the NGEC website at [www.ngec305.org](http://www.ngec305.org).**
- *I have been creating the DMU specification DCRs proposed by Stadler Rail. I have finished the Electrical and Interiors DCRs and sent them to the WG leaders. I hope to finish the rest by early next week.*
- *I have been working on the Trainset specification updates and the first 3 chapters are now complete.*

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

Jeff Gordon, FRA, reported that the “weight” working group last met on 2-24-21 with 16 participants.

He noted that participation continues to be great.

On the last call the group discussed the bi-level specification weight – what it is and why. The discussion evolved into a discussion on not making the parameters too restrictive. They also discussed including incentives to try to keep the weight as light as possible. There would be a benefit if you beat the specification weight and a penalty if you do not. The thought is to include this in the spec.

Jeff noted that “it is an interesting notion” and the group still needs to work out the details.

The next meeting is scheduled for 3-26-21. They plan to meet once a month.

Additional volunteers are welcome – contact Jeff Gordon – [Jeffrey.gordon@dot.gov](mailto:Jeffrey.gordon@dot.gov) or Steve Hewitt at [shewitt109@aol.com](mailto:shewitt109@aol.com) if you wish to join the effort.

**12.****Update: AAR TAG Committee on LED Headlights – Tarek Omar, FRA:**

Tarek Omar reported that the report is complete and has been published and they are “happy with the results”.

This action item is completed and will be removed from the ongoing list of open items.

**13.****Other Issues:**

With no other issues forthcoming, Technical Subcommittee Chair, George Hull adjourned the meeting at 3:28pm Eastern.

**Next Tech subcommittee Call: 4-1-21– 3:00pm Eastern**

### Decisions and Action Items

#### **2021 NGEC Backgrounder educational document:**

The 2021 version of the NGEC two-page backgrounder/educational document has been released and is available electronically or in hard copy by request - contact Steve Hewitt at [shewitt109@aol.com](mailto:shewitt109@aol.com)

**Maintaining Industry Participation List:** There are approximately 200 industry participants.

Since the 2021 NGEC Annual Meeting, there have been several new members joining from the industry. We welcome them to the NGEC and thank them for their interest and participation.

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](mailto:shewitt109@aol.com).

#### **AAR TAG Committee on LED Headlights Update:**

On 3-18-21, Tarek Omar, FRA, reported that the report is complete and has been published.

This action item is completed and will be removed from the ongoing list of open items.

#### **PRIIA Multi-State Procurement Update 3-18-21:**

**Multi-State Car Procurement - Caltrans (Lead State):** Progress reports from the lead state will be provided on each subcommittee call.

On 3-18-21, Jon Mullin, representing Momo Tamaaki, Caltrans, provided the following update:

*Design review for the standard coach is complete. The Cab Car structure FDR is complete and the structural test plans are being coordinated with Caltrans, Siemens and FRA with compression testing planned for April. The Cab Car IDR phase is complete and FDR meetings are scheduled to resume in April. IDOT Café Car reviews are complete and open items are being addressed.*

*IDOT Business Class table testing occurred February 16<sup>th</sup> in Spain. NEC testing for standard coach is complete and the report is accepted by FRA. Caltrans 238.111 testing is complete, and the report has been submitted to Amtrak and FRA. IDOT 238.11 testing and the report is in the submittal stage.*

*75 cars total are in production or have been produced at Siemens Sacramento Facility. There are currently twelve Caltrans cars at the Stockton Facility and eighteen IDOT cars in Chicago. Additional Caltrans and IDOT cars are scheduled to ship in March or April. The initial consists for Caltrans and IDOT are being prepared for Conditional Acceptance and revenue service.*

#### **Document Control Update and action taken – 3-18-21:**

On 3-18-21, Tammy Krause provided the following update for inclusion in the minutes (read into the record by Steve Hewitt):

*I have three items to update on Document Control;*

- *The Equipment Acquisition and Ownership Best Practices Document has been signed and will be added to the website as soon as I get the final version back from Camren.*  
**Note from Steve Hewitt – This document once, finalized, will be available upon request, just as the other NGEC documents are. It will be posted as [art of the PRIIA Document list on the NGEC website at [www.ngec305.org](http://www.ngec305.org).**
- *I have been creating the DMU specification DCRs proposed by Stadler Rail. I have finished the Electrical and Interiors DCRs and sent them to the WG leaders. I hope to finish the rest by early next week.*
- *I have been working on the Trainset specification updates and the first 3 chapters are now complete.*

**Working Group on Weight Issues as of 3-18-21:**

Jeff Gordon, FRA, reported that the "weight" working group last met on 2-24-21 with 16 participants.

He noted that participation continues to be great.

On the last call the group discussed the bi-level specification weight – what it is and why. The discussion evolved into a discussion on not making the parameters too restrictive. They also discussed including incentives to try to keep the weight as light as possible. There would be a benefit if you beat the specification weight and a penalty if you do not. The thought is to include this in the spec.

Jeff noted that "it is an interesting notion" and the group still needs to work out the details.

The next meeting is scheduled for 3-26-21. They plan to meet once a month.

Additional volunteers are welcome – contact Jeff Gordon – [Jeffrey.gordon@dot.gov](mailto:Jeffrey.gordon@dot.gov) or Steve Hewitt at [shewitt109@aol.com](mailto:shewitt109@aol.com) if you wish to join the effort.

Next Update: 4-1-21

**Electronics on Trains Working Group activities as of 2-4-21:**

The following update was provided by David Brabb on 1-26-21 – Steve Hewitt read it into the record:

*On 1-26-21, we had a call with a fairly good-sized group today (for us) at 3pm eastern. We are looking at finishing up the first revision to 305-919 hardware spec., by moving appropriate firmware info to that spec from 305-920. We will reach out to you when we are ready to follow the appropriate procedure for issuing a revision.*

*We do have a couple of new team members that are eager to share lessons learned and what/how they are doing with some of their designs/ builds. The two new gentlemen are Kevin Sudano (Transit Consultant) and Fabio Cussigh of VDS Rail in Italy. Ken Martin (Sharma) and I plan to meet with them in a separate call, in early February 2021 to gather whatever information that they want to share. Of course, all information gathered will be shared/vetted with our group.*

*Our next NGEN Electronics call is scheduled for March 2nd at 3pm eastern.*

Next Update 4-1-21

**University of Nebraska High Speed wireless study as of 2-4-21:**

Hamid Sharif-Kashani provided a brief update on the status of the current phase of the University of Nebraska/FRA High-Speed Wireless Study. The current focus is on computer modeling and performance measures for rail application. They are focusing this effort on 160 Mega Hertz – they will build a model for that frequency and look later at other frequency bands.

For more information, please contact Hamid Sharif ([hamidsharif@uni.edu](mailto:hamidsharif@uni.edu))

Next Update: 4-1-21

**Metro North Dual Mode Locomotive Procurement – 3-18-21:**

On 3-18-21, Ray Hessinger reported that Metro-North held its "kick-off" meeting with Siemens following award of the contract. They are just getting started with discussions on various design topics.

Update: 4-15-21

**Connecticut DOT Rail Car Procurement:**

On 3-18-21, Marci Petterson, CTDOT, reported that this procurement is in the "cone of silence" period.

Next Update: 4-15-21

**Amtrak Equipment Procurement as of 4-15-21:**

CAF: Progress continues – with 2 more Cab cars are complete – there are 7 sleeper cars left to be completed.

Charger Locomotive – Also continues to progress well. The first unit is in testing and it is going well.

AmFleet replacement – is in the “cone of silence” period with discussions continuing with vendors.

Next Update: 4-15-21

**Establish process and timeline for Tech SC review of Access Board NPRM Accessibility Guidelines and compare with current NGEC Specifications**

On 8-20-20, Melissa Shurland, FRA, reported that the comment period ended on 7-14-20 (after having been extended to that date) and the Access Board is now processing those comments received. Melissa stated, “we are in a holding pattern to see what the comments were and what the Access Board’s disposition of them will be.” Melissa will keep the NGEC technical subcommittee informed as the process is completed.

In January 2021 Melissa Shurland informed Steve Hewitt that there still was no update from the Access Board on this activity – it remains in a holding pattern.

Next Update: As appropriate

**Developing a TSSSA spec/menu/template as of 3-18-21:**

On 3-18-21, George Hull reported that Mike Kraft, Amtrak Mechanical, has provided him with a DRAFT TSSSA primer which he has started to review. George hopes to complete his review soon and get the DRAFT to Tammy Krause.

Next Update: 4-1-21

Next call: 4-1-21

**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

**3-18-21**

The agenda for the meeting is below:

- |  |              |
|--|--------------|
| 1. Roll Call   | Steve Hewitt |
| 2. Review Action Items                                   | Steve Hewitt |
| 3. Approve Minutes from 2-4-21                           | George Hull  |
| 4. Summary Overview/Reaction NGEC Annual Meeting 2-23-21 | George/Steve |
| 5. Update: Multi-State Rail Car Procurement              | Momo Tamaoki |

- |  |                 |
|--|-----------------|
| 6. Update: Metro-North Dual mode Locomotive Procurement  | Ray Hessinger   |
| 7. Update: Connecticut Rail Car Procurement  | Marci Petterson |
| 8. Update: Amtrak Vehicle Procurements   | George Hull     |
| 9. Overview DRAFT TSSSA Primer   | George Hull     |
| 10. Update: Document Control Management  | Tammy Krause    |
| - Status – additional DMU specification changes  |                 |
| - Status: Completing of Technical formatting of Single Level Trainset Specification 305-007 – Revision B |                 |
| - Status: Review of PRIIA Use Of APTA PRESS Standards  |                 |
| - Status: Signatures and finalizing 305-200 as approved on 2-23-21                                       |                 |
| 11. Update: working group on specification weight issues   | Jeff Gordon     |
| 12. Update: AAR TAG Committee on LED Headlights  | Tarek Omar      |
| 13. Other  | All             |
| 14. Review this meeting:   | Steve Hewitt    |

**Next call – 4-1-21**