

SECTION 305 TECH SUB COMM

MINUTES

MAY 14, 2020

3:00PM EASTERN

CONFERENCE CALL

FACILITATOR	<i>Charlie King, Chair, NGENC Technical Subcommittee</i>
ATTENDEES	Core Team Members: <i>Charlie King, Jeffrey Gordon, Momo Tamaoki, Curtis McDowell for Matthew Simmons, Jennifer Bastian, Troy Hughes, Steve Hewitt, George Hull, Duncan Copland, Art Peterson, Michael Kraft, Tarek Omar, Mike Murray, Tammy Krause, Dave "Emeritus" Warner, Hamid Sharif-Kashani</i> Industry Members: <i>Richard Curtis, Rich Bowie, Joe Kenas, Paul Arnone, Vlad Ciobanu, Jack Madden, Rich Stegner, Bill Saddler, James Michel, Dick Bruss, Ed Golitko, Steve Morrison, Greg Gagarin, Matt Sibul</i>
ABSENTEES	<i>Matthew Simmons, Marci Petterson, Ray Hessinger, Charlie Poltenson, Jason Biggs, Mike Jenkins, Phil Meraz, Byron Comati, Larry Salci, Melissa Shurland, Brian Marquis, David Brabb, Oscar Bermudez</i>

DISCUSSION/DECISIONS MADE

1.

Chairman King, Amtrak, called today's meeting to order and asked Steve Hewitt to call the roll.

After calling the roll, Steve Hewitt could not confirm the presence of a quorum with only 4 of 8 states represented (5 are needed). It was agreed that the meeting would continue, but no votes would be taken.

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

2.

Review Meeting Agenda – Charlie King, Amtrak:

Chairman King provided a brief overview of today's meeting agenda.

3.

Review Action Items – Steve Hewitt, NGENC Program Manager:

Requesting Backgrounder educational document:

As reported previously, the two-pager has been updated and is available in hard copy and/or pdf versions. To date over 400 hard copies and electronic copies have been distributed.

Contact Steve Hewitt at shewitt109@aol.com for copies – hard copy or PDF. If hard copies, let Steve know where to send them and how many.

Maintaining Industry Participation List: There are approximately 200 industry participation members.

AAR TAG Committee on LED Headlights Phase 4:

On 3-5-20 Tarek Omar reported that they are still finalizing phase 4 and would keep the subcommittee apprised as it progresses.

Next update as appropriate.

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

The intent of this effort is for states to submit their comments to the Access Board Docket on the Accessibility Requirement Guidelines (advanced) Notice of Proposed Rulemaking. Amtrak has submitted its comments already. Once the comments "have come back", the Technical subcommittee will compare them with the NGENC specifications to ensure compliance.

4.

Approval of the Minutes from 4-30-20 – Charlie King, Amtrak:

This item was tabled due to the lack of a quorum and will be taken up on the next call (5-28-20).

**5.
Update: Multi-State Railcar Procurement as of 5-14-20 – Momo Tamaoki, Caltrans:**

Momo Tamaoki, Caltrans, provided the following update on 5-14-20:

Design review for the standard coach is complete. The Cab Car structure FDR took place in February and plans are in work for structural and CEM testing. IDOT galley FDR reviews and releases are ongoing. Cab Car F-coupler FDR occurred on May 6.

Open items for complete coach FAI are near closure. Non-domestic testing has been postponed due to travel restrictions. Video and photos are being provided for tests that SMEs are unable to witness. The Interior Lighting test was repeated last week, and open items are being reviewed. NEC testing made good is complete and the car is being prepared for return shipment to Sacramento.

49 cars total are in production or have been produced at Siemens Sacramento Facility. The production facility remains open under an Essential Business clause. System-level FAIs for standard coach are complete with final approvals in work. Cars 7,9 and 13 were shipped to Stockton on April 27th, and there are now seven cars total at the Stockton facility. Cars 10 through 34 are in final assembly. Cars 11 and 12 are scheduled to be shipped the 2nd week of June. The First IDOT cars are scheduled to ship the 3rd week of June.

The project teams are monitoring potential production and schedule impacts due to the coronavirus and are receiving frequent updates from SCOA and Siemens.

Charlie King commented that the 125mph testing on the NEC went very well and the equipment will be returning to California next week.

Momo thanked Charlie/Amtrak for completing the 125mph testing.

**6.
Update: Amtrak Equipment Procurement – Charlie King:**

On the Locomotives:

This procurement remains on schedule – with the first article still expected “to be shipped over next year” around February.

On the Acela:

Testing at TTCI has been going on at increases of 10mph each day and is expected to get up to 165mph this week.

On the Intercity Trainset Procurement:

This remains an active procurement still being evaluated.

On the Maintenance of Way Yard locomotives:

The request to fund this procurement will be taken to the Amtrak Board next week.

**7.
Update: Metro-North Dual Mode Locomotive Procurement: Ray Hessinger:**

Ray Hessinger was unavailable for this call and did not provide an update. This item is tabled until the next call 5-28-20.

**8.
Status: Developing a TSSSA template/menu of options – Charlie King:**

Charlie reported that he is waiting on approval from a company to use one of the diagrams that was jointly prepared with Amtrak. Once he has that approval, he will be able to proceed in the development of the TSSSA template.

Next update: 6-11-20.

9.

Document Control Update – Tammy Krause, NGECC DCM:

Tammy Krause provided the following update for inclusion in the minutes (5-14-20):

I only have one update on Document Control and that is the proposed changes or DCRs for the DMU have been sent to the Working Group leaders and I have received comments back from the Propulsion WG.

10. Status Update – Electronics on Trains Working Group – David Brabb:

David Brabb was not available but provided the following update:

NGECC Electronics Subcommittee – Update for 5-14-20:

We are currently asking the group (The Tech SC) to help us with guidance on the original intent of the PRIIA 305 specification, including the topology, for the DTL system. In our last meeting, on April 21st, we discussed whether we should specify a RING topology or a Linear topology. This question came up because our initial find seemed to point to a Ring topology. But after review and feedback, it looked as though a linear topology would be more appropriate.

Additionally, we have had industry suppliers tell us that we should specify the allowance for both topologies. This, as you know, would make interoperability between the two difficult, as one of them would have to be changed to the other to work correctly in the same consist.

We have yet to receive clarification as to the main intent.....do we need to design the specification(s) to ensure interoperability between all vehicles? Or, is this optional? And, if it does not apply to all vehicles, which vehicles or train sets would it apply to? That is the information that we are looking to clarify.

Our next meeting is planned for May 19th.

Tammy Krause agreed to look at the issues/questions raised by David Brabb and to provide him with a response.

11. Status Update: University of Nebraska High Speed Wireless Study – Hamid Sharif-Kashani:

Hamid Sharif-Kashani summarized the High-Speed Wireless Study what has been done and what the plan is going forward. He also provided the following update for inclusion in the minutes of today's call (5-14-20):

Hamid Sharif – University of Nebraska-Lincoln Report:

Completed Project:

We designed, developed, and evaluated a unified communications architecture for high-speed passenger rail services. We focused on our evaluation framework and tested it on 4G LTE. This testing framework is designed to be applicable to a wide range of technologies under test by utilizing software radios. It also allows us to conduct both lab tests and field tests, both stationary and mobile.

We utilized this platform to conduct a series of tests. These included lab tests using our channel emulator facility to evaluate it under different wireless channel models. It also included testing in rural, urban, and suburban environments, as well as mobile drive tests at Interstate velocities.

We found our testing framework to dependable and versatile. With this testing framework now available, our aim for the next phase is to study different technologies that fit into different aspects of our architecture design.

Next phase:

One key challenge that drives system expense is the limited wireless communications bandwidth available to support these railroad applications, especially in high-density traffic areas. For example, data shows that dense urban areas such as the Chicago area have spectrum shortages that are expected to severely impact the performance of PTC systems and railroad operations. The 220 MHz band is the primary frequency used for interoperable PTC systems. Other railroad frequency bands are therefore of considerable interest to the rail industry to alleviate the demand on currently utilized bands.

We plan to conduct an in-depth review of the operating regulations and restrictions of these frequency bands and their theoretical applicability for different key railroad applications such as wayside communication, onboard train control and monitoring operations, and the exploration of mixed voice/data applications.

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For more information, please contact Hamid Sharif (HSHARIF@UNL.EDU)

**12.
Other Issues:**

Jack Madden, Erdman Anthony, asked the Chair for a moment to remember Allen Beiber, a long time industry member and active participant in the work of the NGEC Technical subcommittee who passed away in September 2019. Below are Jack's remarks:

Mr. Chairman, some of you may already know this, but Rich Stegner and I learned that long-time member of the Technical Subcommittee, Allen Bieber passed-away on September 15th last year in Erie PA at the age of 80. I worked with Al on the Locomotive Working Group in the development of the Diesel-Locomotive Spec and the Dual-Mode Locomotive Spec, as well as on the Propulsion Team in the development of the DMU Spec.

Al worked at General Electric for many years, where he was instrumental in the development of the GE Genesis series of locomotives, the P40, P42, and the P32AC-DM. During his post-GE career, he worked at STV and joined the NGEC. He was the leader of the Mechanical/Carbody Team when I was Chair of the Loco WG. I learned a lot from Al; he provided me with much information on the P32AC-DM, which was instrumental in our development of the Dual-Mode Spec. He was extraordinarily patient and generous in answering my endless questions concerning locomotives. He contributed much to the NGEC and I will miss him.

Thank you, Mr. Chairman.

With no further business forthcoming for today's call, Charlie King adjourned the meeting at 3:33PM Eastern and asked everyone to remember Allen Beiber.

Next Call: 5-28-20– 3:00pm Eastern

Decisions and Action Items

Requesting Backgrounder educational document:

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Reminder: The list is only as good as the information Steve is provided, and often members retire or move on to other companies and do not let Steve know so the list becomes inaccurate.

AAR TAG Committee on LED Headlights Phase 4:

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Next update as appropriate.

PRIIA Multi-State Procurement Update:

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

See agenda item 5 for 5-14-20 update.

Document Control Update as of 5-14-20:

The proposed changes or DCRs for the DMU have been sent to the Working Group leaders and I have received comments back from the Propulsion WG.

Electronics on Trains Working Group activities as of 5-14-20:

NGEC Electronics Subcommittee – Update for 5-14-20:

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Next update: 6-11-20

Metro North Dual Mode Locomotive Procurement:

As of 4-30-20, Metro-North continued to be in the procurement "Cone of Silence".

Next update – 6-11-20

Connecticut DOT Rail Car Procurement:

On 4-30-20, Marci Petterson, Connecticut DOT announced that they are about to an RFP on new rail cars. Marci will send the link to Steve Hewitt for distribution to NGEC members.

Next update: 5-28-20

Amtrak Equipment Procurement as of 5-14-20:

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Next update: 6-11-20.

Next call: 5-28-20

Call in number is:

888 585-9008 access #: 559-120-127

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

May 14, 2020

The agenda for the meeting is below:

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|--|----------------------|
| 1. Roll Call | Steve Hewitt |
| 2. Review Meeting Agenda | Charlie King |
| 3. Review Action Items | Steve Hewitt |
| 4. Approve Minutes from 4-30-20 | Charlie King |
| 5. Update: Multi-State Rail Car Procurement | Momo Tamaoki |
| 6. Update: Amtrak Equipment Procurement | Charlie King |
| 7. Update: Metro-North Equipment Procurement | Ray Hessinger |
| 8. Status: Developing a TSSSA template/Menu of options | Charlie King |
| 9. Update: Document Control Management | Tammy Krause |
| - Status: Compiling Single Level Trainset Specification 305-007 – Revision B | |
| - Status: DMU spec update – timeline | |
| - Updating list of Technical working group members | |
| - Review of ConnDOT Rail Car Specification vs NGEC Spec | |
| 10. Status Update: Electronics on Trains Working Group | David Brabb |
| 11. Status Update – University of Nebraska High Speed Wireless Study | Hamid Sharif-Kashani |
| 12. Other issues | All |
| 13. Review this meeting: | Steve Hewitt |
| a) Decisions | |
| b) New Action Items | |

***Technical Sub Committee Conference Call Meeting:
Thursday 5-14-20 / 3:00pm Eastern / 1-888 585-9008 / passcode 559-120-127#
Please call in a few minutes early so all is in attendance for Roll Call.
Thank you
Next Call –5-28-20 at 3:00pm Eastern***