



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

Section 305 Next Generation Corridor Equipment Pool Committee (NGEC)

Monthly Activities Report: August 31, 2019

Submitted By: Steven J Hewitt, Program Manager, S305 NGEC

Public law 110-432 required Amtrak to:

...establish a Next Generation Corridor Equipment Pool Committee, comprised of representatives of Amtrak, the Federal Railroad Administration, host freight railroad companies, passenger railroad equipment manufacturers, interested States, and, as appropriate, other passenger railroad operators.

"The purpose of the Committee shall be to design, develop specifications for, and procure standardized next-generation corridor equipment.

(b) Functions – the Committee may –

- 1) Determine the number of different types of equipment required, taking into account variations in operational needs and corridor infrastructure.*
- 2) Establish a pool of equipment to be used on corridor routes funded by participating states; and*
- 3) Subject agreements between Amtrak and States, utilize services provided by Amtrak to design, maintain and remanufacture equipment."*

Executive Board

Chair: Eric Curtit, Missouri DOT

Vice Chair: Charles King, Amtrak

Secretary: Ray Hessinger, NYSDOT

Treasurer: Tim Ziethen, Amtrak

The Executive Board holds bi-weekly conference calls – Tuesday's at 11:30am Eastern

During the month of August 2019, the Executive Board met two times, via conference call, on the 13th and the 27th.

Highlights, decisions, and action items from the month of August 2019 include:

- Equipment Procurement Updates:
- Status Update - Multi-State Rail Car Procurement as of 8-27-19 - provided by Caltrans:
 - All FDR System Level and related submittal approvals for the standard coach are at a Conditional Approval level or greater.
 - The IDOT galley mock-up review is scheduled for October 2019. The IDOT Café Car IDR is scheduled for the week of September 2 in Sacramento. Action items for the Cab Car PDRs are in work and the Cab Car Brake System IDR is confirmed for September 4th.

- The first 29 carshells are in production at Siemens Sacramento Facility. Static Lean, Wedge testing and air brake testing continue this week on Car #1. The corner load test is complete on Car #2 which is being prepared for trucking. Luggage rack brackets have been installed on Carshell #3. The remaining carshells are in various stages of component installation, welding, integration, painting or storage.
- The FAI process continues and most system-level FAIs are complete. Recent FAIs include the Trap Door and Vestibule Lining. The Compete Coach Car FAI is tentatively scheduled for September 17th pending production progress through the week. The FRA Sample Car Inspection will be scheduled once FAI dates are finalized.

- Status Update: Metro North Dual Mode Locomotive Procurement as of 8-27-19:

Metro-North is currently doing its due diligence in reviewing submissions received from vendors, and it remains on schedule for selection this year.

- Amtrak Locomotive Procurement – 8-27-19:

On the Acela 21:

2 cars are together at Hornell – not officially a trainset yet – no power cars at this point – but great progress. There have been a few minor delays but the start of testing at TTCI remains on schedule for January 2020.

On the Charger:

The procurement remains on track – Amtrak is engaged in a review conference with Siemens.

The anticipated April 2021 Delivery timeframe remains on track.

On the Trainset procurement:

November remains as the timeframe for bids to come in and then an aggressive schedule will proceed on the next steps.

Minor adjustment to the spec is being made as input is received from potential bidders.

- METRA Equipment Procurement status:

As of 4-9-19, an RFP is on the street for 200-400 bi-level cars. They are going through the process now. Interested parties must respond by August 2019.

METRA has the NGEC specification, but John does not know if the plan to use it or if they will be in contact with the NGEC or not.

There will be future updates as appropriate. Nothing new reported in August 2019.

- Document Control Update – 8-27-19:

The Technical subcommittee approved the DCRs presented for Revision B of the Trainset specification 305-007. The subcommittee has asked the Executive Board to begin its review process to moving forward in consideration of adopting the changes and create Revision B. Tammy Krause requested that Chairman Curtit re-convene the Trainset Review Panel and request that consultant Larry Salci begin the review process.

- Re-Convening the Trainset Spec Review Panel – confirming members/setting timeline -Eric Curtit:

Eric Curtit and Jeff Gordon are confirmed as panel members – as are staff/advisors Steve Hewitt, Tammy Krause and Michael Burshtin.

Steve Hewitt will send an email to all Review panel members to ask that they confirm their willingness to serve again.

Steve will also reach out to Larry Salci and ask that he take the necessary steps with AASHTO to facilitate a contract for his review of the DCRs and preparation of a Review Panel report with recommendations. Larry will be asked on the next Executive Board call – 9-10-19 – to provide a timeline for completion and some dates for a Review panel call.

Trainset Review Panel:

Eric Curtit, Missouri DOT - Chair

Allan Paul, North Carolina DOT

Jason Biggs, Washington State DOT

Jeff Gordon, FRA

Larry Salci, consultant to the Review Panel

Michael Burshtin, Amtrak – technical support

Tammy Krause, NGEC Document Control Manager

Steve Hewitt -NGEC support

- VIA Rail Equipment Procurement – status as of 7-30-19:

On 7-30-19, Robert Becker provided a brief status update:

that things are going well and that they are close to wrapping up the conceptual design review phase.

In September, they will begin the next phase – preliminary design review.

There have been no major issues.

They are in the process of fine tuning the final configuration after beginning with a base specification.

The next update is scheduled for September 24, 2019.

- The Equipment Acquisition and Ownership Working Group activities as of 7-30-19:

The Equipment Acquisition and Ownership Working Group last met on 4-18-19.

All DRAFT sections (4) of the report have been submitted and are under review.

The working group will meet on 8-8-19 to discuss the submittals and determine next steps in compiling a full DRAFT report.

Next Update: 9-24-19

- Update: States and Amtrak – Charger Locomotive Experience as of 7-30-19:

Mid-West States Experience:

The Charger locomotives have been running for 2-years and are working well with all of the locomotives in service and only the normal “teething” issues occurring and being worked through.

One area that they are striving for improvement and are making improvements on is parts availability and field service. These issues are challenging but being worked out and improving.

There have been several vehicle strikes and debris strikes in the Mid-West, but the good news is that the Crash Energy Management (CEM) performed very well. The engineers were very satisfied with the safety of the cabs.

Overall, they are very pleased with the performance of the locomotives.

California Experience:

Caltrans reported on the average number of miles and engine hours for the locomotives in the various sections of the state where they are being used and noted that they are performing well.

There have been several debris strikes and Siemens and Amtrak are working on repairs.

Caltrans has exercised its option for continuing technical support with Siemens after the warranty has expired.

There have been some instances of ice build-up on the HVAC and they are working on determining the root cause.

Overall, the locomotives are performing very well.

Washington State Experience:

No report provided

Amtrak Experience:

Amtrak has held several meetings with Siemens on parts availability as “we continue to support the states” as our partners.

Amtrak is leasing a state unit to test in Long Distance service. Rolling Stock Engineers are on board to see how the locomotives perform in the hot days and high altitudes. The locomotive is in the trail, not lead, position on this test.

So far it has performed extremely well.

The intent is to also conduct a test in the winter weather to see how it fares. And they are working on resolving the snow ingestion issues that occurred last winter.

Next update: NGEC Annual Meeting February 2-20

- 2019 NGEC two-pager educational document:

The 2019 NGEC two-page educational document was formally released on 2-22-19 at the NGEC Annual Meeting (distributed to all attendees.

As of 8-27-19 the NGEC program Manager, Steve Hewitt, has distributed 265 hard copies and 355 electronic copies.

Additional copies can be obtained by contacting Steve Hewitt at shewitt109@aol.com

- Treasurer’s Update – Current Balance and Spend Rate as of 8-13-19:

As of 8-13-19:

Initial grant amount: \$1,250,000

Current Balance: \$814, 590.67

Next Update 9-10-19

- Developing proposed NGEC Re-authorization Language – scope and funding:

Eric Curtit provided an overview of the DRAFT NGEC reauthorization language that was distributed prior to today’s call. It is re-printed below:

DRAFT NGEC Reauthorization scope and funding language

(§24101): The Passenger Rail Investment and Improvement Act of 2008 directed Amtrak, states, FRA and industry to establish the Next Generation Corridor Equipment Pool Committee (NGEC) to standardize and streamline the process for designing and obtaining next-generation passenger rail equipment purchased with federal funding. NGEC is the national leader in standardization, acquisition, and management of passenger rail equipment. The Committee effectively developed 6 specifications that focus on single level

car, bi-level car, single level train sets, diesel-electric locomotive, diesel multiple units, and dual-mode locomotive. Its document control procedures enable a review of the use of specifications and requests for modifications in order to continuously improve these specifications as new developments are conceived in vehicle production/manufacturing. The Committee has succeeded in lowering operating and maintenance costs and extending vehicle life expectancy. Lastly, NGEC sparked domestic production, invigorated the supply chain and created high-wage jobs. It is important that Congress reauthorize the committee in order to improve future equipment needs.

The NGEC suggests the following actions for consideration in the FAST Act Reauthorization:

- 1) *Reauthorize the NGEC and provide \$2,500,000 over the life of the bill for the NGEC activities;*
- 2) *Authorize the NGEC to:*
 - a. *Continue its document management efforts to maintain and improve upon its current passenger rail equipment specifications through existing NGEC procedures;*
 - b. *Continue its work in documenting best practices and lessons learned in equipment acquisition and ownership including; the development of a living reference document that will provide guidance for future equipment procurements;*
 - c. *Continue to work with entities like the Transportation Research Board (TRB) to leverage limited funding for additional research;*
 - d. *Develop high speed rail equipment specifications;*
- 3) *Award preference to entities using NGEC specifications who seek discretionary federal funding for new passenger rail equipment;*

To date an ever-increasing number of entities within and outside of the NGEC have used its specifications as a basis for procuring new rail equipment and this trend is expected to continue.

To date, the committee has expended approximately \$3 million and has created six standardized vehicle specifications and continues to improve each as they are used in actual development of equipment. Creating and using standardized specifications will help to continue to increase competition and lower costs.

Eric added that he will include a line in the proposed language that notes that the FRA is not a party to the request – that it is coming from the states and Amtrak.

The intent is to have all comments in to Eric Curtit and Steve Hewitt by COB on 9-6-19, and the language will be finalized on the 9-10-19 Executive Board call. In the meantime, if Amtrak or AASHTO or others need the language to meet a deadline, this language will be used as a placeholder.

- Equipment Acquisition and Ownership Best Practices Working Group – 8-27-19:

The Working Group met on 8-8-19

All sections (Planning, Implementation, Revenue Service, and Sustainability) have been submitted by the team leaders and working group members have begun to review and comment on the material that has been submitted.

On 8-8-19, a discussion about the nature of the comments and a path forward took place. In general, the comments received revolved around duplication, overlap between sections and differences in structure.

It was agreed that members will be given additional time for review and to provide additional comments.

Once all comments are received, the next step will be to develop a scope and budget for possibly procuring professional assistance to compile the sections and write the report.

During the discussion, it was emphasized/clarified that this “report” is meant to be a reference document. It is meant to be a tool that states looking to procure equipment can use as a reference identifying best practices as well as issues that have come up in these initial NGEC procurements.

A timeline was established as follows:

All members having additional comments are to submit them in track changes to Eric Curtit and Steve Hewitt by COB 9-5-19.

Steve Hewitt will send all comments out to the members in advance of the next call which will take place on 9-19-19 at 4:00pm Eastern. On that call, next steps will be further defined. The overall timeline remains for the document to be finalized in time for the NGENC 2020 Annual Meeting (February 2020).

On the next Finance and Administrative subcommittee call (8-21-19), Steve Hewitt and Eric Curtit will begin the discussion on moving forward under NEC procurement procedures for contracting for a consultant to complete the document.

Next update 9-24-19

- TRB session – NGENC 10 years of Progress:

On 8-13-19, it was agreed that Jack Madden will work with TRB and the NGENC executive Board in developing a lectern session to be held during the TRB Annual Meeting in January 2020.

The Board will determine the content and the speakers for the panel and keep Jack apprised. Jack will need to finalize participants and content by 10-1-19. In the meantime, Jack will reserve the slot for the TRB meeting using the working session title of "The NGENC – 10 Years of Progress".

On 8-27-19, speakers were discussed further. FRA has committed to having a representative on the panel.

Action/timeline: The NGENC Executive Board needs to let Jack Madden know by 10-1-19 who will participate and what the content will be.

This will remain as an agenda item for the next call (9-10-19) to try to firm up participants.

Technical Subcommittee:

Chair: Charles King, Amtrak

Vice Chair: George Hull, Amtrak

The Technical subcommittee holds bi-weekly conference calls on Thursday's at 3:00pm Eastern

During the month of August 2019, the Technical subcommittee met twice, via conference call, on the 8th and the 22nd.

Key decisions and action item updates from the month of August 2019, included:

- Status of the activities to update ECP Standards: This is an ongoing item which the Technical subcommittee is tracking:

ECP Project:

The test committee met on May 29, 2019 with some minor edits requested to the final FRA report. The report will be submitted by APTA under docket no. FRA-2015-0078. The report will be made available to the NGENC after APTA submittal. The revenue service demonstration resulted in 1,039,740 ECP fleet miles and 2,126,747 Emulation (BP operation) fleet miles. The total mileage for ECP and emulation was 3,166,541 fleet miles. A total of five incidents were reported the revenue service demonstration. Two incidents were related to electronic hardware, there were no software incidents and three incidents related to training which occurred early in the ECP revenue service demonstration. The hardware incidents have been properly investigated and resolved. The APTA PRESS standards for the emulation 26C configuration and ECP configuration were approved and will be available on the APTA standard website. The equipment provided by New York Air Brake (Knorr) and Wabtec were approved under this project. Draft regulatory language has been prepared and provided to the FRA.

Amtrak will continue the revenue service demonstration.

On 7-11-19, Paul Jamieson reported that all reviews are done, and the report is in the hands of APTA to package the report. Paul has requested that APTA let him know the anticipated date of completion. Once the report is made available, Paul will provide it to Steve Hewitt for distribution to the NGEC members.

Next update as appropriate – nothing new to report in August 2019

- Backgrounder educational document:

On 2-22-19, at the NGEC Annual Meeting, the updated two-page educational document was officially released. Hard copies were provided to all meeting attendees and are available by request through Steve Hewitt – shewitt109@aol.com

As of 8-30-19, 265 hard copies have been distributed along with 355 electronic versions.

- AWG/RVACC:

Background:

At the 2018 annual meeting, Melissa Shurland, FRA, provided an update on the activities of the Accessibility Working Group and on the RVACC effort. The presentation is available on line on the NGEC website at www.ngec305.org.

The last update provided to the Technical subcommittee was on 10-4-18 when Melissa Shurland reported that there still has been no word from the RVACC on the possible release of a rule for accessibility on Rail Vehicles.

As of 8-22- 2019, no further updates have been provided.

- Document Control Update:

See the update provided in the Executive Board section of this report.

Procurement Updates:

- Multi-State Car Procurement - Caltrans (Lead State): Progress reports from the lead state on the PRIIA multi-state car procurement is provided on each Technical subcommittee call and each Executive Board call.

See the update provided in the Executive Board section of this report.

- Metro North Dual Mode Locomotive Procurement:

See the update provided in the Executive Board section of this report.

- Amtrak Equipment Procurement Updates: Progress reports are provided by AMTRAK CMO and NGEC Vice Chair, Charlie King on a regular basis.

See the update provided in the Executive Board section of this report.

- METRA Equipment Procurement:

See the update provided in the Executive Board section of this report

- AAR Update on the TAG Committee on LED Headlights as of 8-8-19:

On 8-8-19, Tarek Omar reported that the report has been provided to Ensco to finalize the test protocol with TTCI to be ready to begin the testing.

Next update 9-19-19

- University of Nebraska study on High Speed wireless technology as of 8-22-19:

As of 8-22-19, Hamid Sharif-Kashani reported that they are in the process of setting up the infrastructure for outdoor testing. They are designing their own hardware to test 4G LTV and 5G radios.

On the software, they are working in a collaborative effort with Open Car Interface Software – comprised of industry and academia.

The intent is to begin outdoor testing in September – at first in the parking lot and then beyond.

For further details please contact Hamid via email at: hamidsharif@unl.edu

Next update – 9-19-19

Contact Information:

Hamid Sharif Kashani
Phone: 402-554-3628
Email: hsharif@unl.edu

- Update: Electronics on Trains Working Group as of 8-22 -19:

The electronics subcommittee met had a call on Tuesday, August 20th. They internally edited 305-919 DTL hardware specification and submitted it to the group for review and comment to be returned to team leader David Brabb no later than September 6th. The next call is planned for September 17th.

Next update: 9-19-19

The Finance and Administrative Subcommittee

Chair: Tim Ziethen, Amtrak

Vice Chair: Brent Thompson, Washington State DOT

Vice Chair: Ray Hessinger, New York State DOT

The Finance and Administrative subcommittee (FASC) holds a conference call every four weeks on Wednesdays at 3:00pm Eastern.

During the Month of August 2019, the Finance and Administrative Subcommittee met once, on the 21st.

- Treasurer's Report as of 8-21-19:

The Treasurer's report through the last invoice submitted for May 2019 is as follows:

Amount Spent through the May 2019 invoices: \$435, 409.33
Total Initial Grant Amount: \$1,250,000.
Balance remaining: \$814,590.67
Spend Rate per month: \$13,606.

At this rate there is enough funding for several years (around 3). However, the grant period (as extended) runs through 9-30-2020. Tim noted that FRA has given verbal approval for another no-cost extension to be requested. The process for making the extension request should begin in Spring of 2020.

- NGEC – Looking Ahead:

Tim Ziethen provided an intro/background on this agenda item. He reported that Amtrak Government Affairs is using a dollar amount of \$5 million over 5 years as a placeholder awaiting language, scope and funding

request from the NGEN. Amtrak's Board will be approving the Amtrak Reauthorization requests in September, but there would still be some ability to revise the NGEN language following that.

Eric Curtit reported that the NGEN Executive Board had a brief discussion on Reauthorization based on the FASC recommendation that the Board approve proposed language, scope and funding for reauthorizing the NGEN in the next federal surface transportation bill. The intent is to provide it to Amtrak and AASHTO and any others who may have an interest in including the language in their principles/requests for the FAST Act successor legislation.

Steve Hewitt and Eric Curtit will be preparing proposed language for Board consideration but have informed the Board that placeholder language may be needed (and – in the case of Amtrak is in place) based on the timelines of Amtrak and/or AASHTO.

- Discussion: NGEN Equipment Acquisition and Ownership Best Practices Working Group:

Status – Developing a Reference Document

The NGEN Equipment Acquisition and Ownership Working Group has developed 4 DRAFT sections: Planning, Implementation, Revenue Service, and Sustainability. The 4 sections are under review by the working group members. All comments are due to Eric Curtit and Steve Hewitt by 9-5-19. After that they will all be compiled and sent to working group members in advance of the next call – 9-19-19.

On 9-19-19 next steps in compiling all comments and synthesizing the 4 sections into a document without duplication and with one voice will be determined.

Discussion: Procuring professional assistance to compile and complete “report”

It is likely that the recommendation will be to procure professional services to complete the report/reference document.

Potential Next Steps

Assuming the next step is developing a SOW and budget for contracting out the completion of the reference document, the working group will need guidance from the FASC and from AASHTO on the mechanics and availability of funds.

Tim Ziethen asked what the anticipated funding need would be for a professional services contract to complete the report/reference document.

Eric Curtit responded that it would likely be in the ballpark of well under \$20,000.

Tim asked if there was any action required by the FASC at this time.

Eric stated – no action now – the intent today was to T it up to let the FASC and AASHTO know what is likely to be coming – as a heads up. Eric added that he will defer to Tim and to Strat (AASHTO) on the appropriate process for developing an RFP and going forward.

- Preparation of the Quarterly Grant Progress Report – Due to FRA – 7-31-19:

The progress report for the period ending June 30, 2019, was submitted to FRA, as required, by July 31, 2019.

Next report (period ending 9-30-19) due to FRA by 10-31-19

NGEC Specification Review Panel(s):

For each PRIIA NGEN specification a Review Panel has been established to compare the specification (as developed by the Technical subcommittee) against a Requirements document previously adopted by the Executive Board. As the Review Panel completes its work, it prepares a report with recommendations. This

report is submitted to the Executive Board for its consideration. Once accepted by the Board, the specification is subsequently formally adopted by the Executive Board. As part of the Document Control process, any proposed revisions to a PRIIA NGEC specification must go through the Review Panel process as well. At such times, the Review Panel, previously established for a specification, is re-convened by the Executive Board chair.

The Specification Review Panel(s) did not meet in August 2019 however, the Technical subcommittee approved the Single Level Trainset Specification 305-007 Revision B DCRS and advanced them to the NGEC Executive Board on 8-22-19. On 8-27-19, the Executive Board Chair formally reconvened the NGEC Trainset Review Panel and authorized consultant Larry Salci to begin the review process.