WELCOME & SAFETY BRIEFING
FRA OPENING REMARKS
INTRODUCTIONS
AGENDA AND MEETING OBJECTIVES
Agenda

- Welcome and Introductions
- Study Overview and What We’ve Heard
- Baseline Network Overview
- Enhanced Network Development
- Discuss Enhanced Network
- Comparison of Enhanced and Baseline Networks
- Route Definition and Feedback
- Stakeholder Insights for Ongoing Feedback Opportunities
- Closing and Next Steps
Meeting Objectives

- Brief stakeholders on the study progress
- Inform stakeholders on the methodology for developing the Enhanced Network
- Receive input from stakeholders on:
  - The Baseline and Enhanced Networks
  - Potential new long-distance routes using the Enhanced Network
  - The role of FRA or other organizations in gathering feedback
About the FRA Long-Distance Service Study

The Infrastructure Investment and Jobs Act (IIJA) of 2021 requires the FRA to conduct a study to evaluate the restoration of daily intercity rail passenger service along —

- any Amtrak Long-Distance routes that were discontinued; and
- any Amtrak Long-Distance routes that occur on a nondaily basis.
- FRA may also evaluate potential new Amtrak Long-Distance routes, including with specific attention provided to routes in service as of April 1971 but not continued by Amtrak.
Legislative Considerations for Long-Distance Service Expansion

- Link and serve large and small communities as part of a regional rail network
- Advance the economic and social well-being of rural areas of the United States
- Provide enhanced connectivity for the national Long-Distance passenger rail system
- Reflect public engagement and local and regional support of restored passenger rail service
Preferred options for restoring or enhancing Long-Distance service

Prioritized inventory of capital projects to restore or enhance service

Federal and non-Federal funding sources

Estimated costs and public benefits of restoring or enhancing intercity rail passenger transportation in the region impacted for each relevant Amtrak route
Common long-term vision for Long-Distance passenger rail service, and capital projects needed to implement that vision, based on existing conditions, future travel demand, and the role of Long-Distance services in the linking communities across the country.

Potential institutional arrangements, financial requirements, and planning and development activities needed to implement the vision.

Strategies for Amtrak and other key stakeholders for implementation and coordination in development of Long-Distance routes, including potential opportunities and efficiencies in Amtrak’s management and implementation of Long-Distance services.
Overview of Long-Distance Service Study Scope

- Plan and execute agency, stakeholder and public engagement
- Review previous Long-Distance services
- Assess current Long-Distance services and travel market
- Develop study methods and tools
- Develop restoration and expansion concepts
- Identify preferred options and prioritization
- Develop costs, benefits, and financing information
- Identify final recommendations and implementation strategies
- Issue final report
Long-Distance Service Study Approach

Amtrak Non-Daily (Cardinal & Sunset Limited) Routes
- Evaluate existing conditions & requirements to restore to daily service
- Consider & recommend daily service restoration plan

Former Long-Distance Routes

Potential New Long-Distance Services

Market Assessment & Evaluation Factors

Long-Distance Service Restoration & Expansion Analysis for Refined Route Network

Long-Distance Service Prioritized Options
- Service Plans
- Capital & Operating Costs
- Community & Economic Benefits
- Implementation Phasing

Report to Congress
- Implementation priorities
- Costs & benefits
- Capital project inventory & phasing
## Long-Distance Service Study Expectations

<table>
<thead>
<tr>
<th>What this Study IS</th>
<th>What this Study IS NOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focused on Long-Distance Network</td>
<td>A “National Rail Plan”</td>
</tr>
<tr>
<td>Assessment of routes over 750 miles</td>
<td>Assessment of State-Supported routes</td>
</tr>
<tr>
<td>Focused on Amtrak as service provider</td>
<td>Identifying other service providers</td>
</tr>
<tr>
<td>Service frequencies to meet Long-Distance markets</td>
<td>High frequency service</td>
</tr>
<tr>
<td>Utilization of existing rail corridors</td>
<td>Identifying new “greenfield” alignments</td>
</tr>
<tr>
<td>Conventional rail/technology</td>
<td>High-speed or other emerging technologies</td>
</tr>
</tbody>
</table>
Long-Distance Service Study Technical Outputs

- **Develop robust market demand and operations and maintenance (O&M) costs that emphasize the benefits and costs of both the existing and an expanded long-distance network**
  - Includes developing demand, revenue, and O&M cost estimates for specific routes under consideration

- **Identification of passenger-service specific projects**
  - Examples: stations, rolling stock, track upgrades
  - Projects will be included as part of "prioritized inventory" mandated by the legislation
  - Decision to focus on identifying these types of projects was based on feedback from host railroads during initial LDSS outreach

- **Conceptual-level identification of capacity improvements**
  - LDSS is the first step in a process to help Congress understand potential for additional Long-Distance service
  - LDSS will acknowledge need for additional study and identification of capacity needs for success of any additional services
  - Provide "sketch level" capacity improvements, but not advanced enough for inclusion in prioritized inventory
Long-Distance Service Study in the FRA Project Lifecycle Stages

Development Stages

- Systems Planning
- Project Planning
- Project Development

Implementation Stages

- Final Design
- Construction
- Operation

Programs

- Regional & State Rail Planning
- Corridor Identification & Development Program
- Fed State Partnership / Other Federal Funding Programs
- Restoration & Enhancement Program

FRA Long-Distance Service Study
The IIJA established the **Corridor ID Program** to facilitate the development of intercity passenger rail corridors and create a foundational framework for identifying and developing new or improved intercity passenger rail services.

**Requires FRA to:**

1. Solicit proposals for implementing new or improving existing intercity passenger rail service
2. Select proposals for development under the Program
3. For each selected proposal, partner with the entity that submitted the proposal to prepare or update an existing Service Development Plan (SDP), which must include a corridor project inventory
4. Establish a prioritized pipeline of projects that may be implemented with funding provided under FRA’s (and potentially other federal) capital investment financial assistance programs

**Eligibility includes both short-distance (less than 750 miles) services, along with increasing the frequency of long-distance service, and restoring service over any route formerly operated by Amtrak**
Long-Distance Service Study & Corridor ID Nexus

Corridors eligible under **Corridor ID**:
- A new intercity passenger rail route of less than 750 miles
- The enhancement of an existing intercity passenger rail route of less than 750 miles

**Shared Elements**
- Restoration of service over route formerly operated by Amtrak
- Increase of service frequency of a Long-Distance intercity passenger rail route

Corridors assessed under **FRA Long-Distance Service Study**
- Potential new Amtrak Long-Distance routes, including with specific attention provided to routes in service as of April 1971 but not continued by Amtrak

U.S. Department of Transportation Federal Railroad Administration
Long-Distance Service Study Engagement Schedule

Meeting 1
January-February 2023
Universe of Routes & Evaluation Factors

Meeting 2
Summer 2023
Enhanced Network Route Development

Meeting 3
Winter 2024
Route Identification

Meeting 4
TBD
Recommended Actions
WHAT WE HEARD
Route and Frequency Feedback Received at Meeting Series 1

- During interactive sessions at the first regional working group meetings, attendees were asked a series of questions, including:
  - What previously discontinued long-distance services should we consider and why?
  - In thinking about existing long-distance routes - what new frequencies and service changes should we consider?
  - What new routes or communities do you want to extend long-distance service to and why?
Evaluation Factor Feedback Received at Meeting Series 1

- Each region was asked about the types of evaluation factors that should be used to guide refinement and selection of previously discontinued routes. Feedback included:
  - Number of connections a route would provide to enhance the national long-distance and intercity networks
  - Number of connections to large and small communities
  - Number of areas with higher-than-average disadvantaged populations
  - Number of city pairs with highest ridership potential
  - Schedule frequency and convenience
  - Connections to airports and multimodal opportunities
  - Number of connections to key destinations
  - Economic benefits to communities along a route
Feedback from the Website

- Received approximately 1,000 comments as of March 17
  - The project team reviewed and categorized all comments received
  - Generally, feedback indicated support for the study and a desire for increased long-distance service

Comment Type

- Modify Current Service: 23%
- Restore Former Service: 10%
- Potential New Service: 47%
- Systemwide: 12%
- Other: 8%
BASELINE NETWORK OVERVIEW
Definitions for the Network

**Existing Network**
The intercity passenger rail network consists of the current long-distance services, state-supported services, and NEC services.

**Baseline Network**
The passenger rail network that consists of current long-distance services, state-supported services, NEC services, and projects that meet the criteria to be included in the baseline (“Baseline Projects”).

**Discontinued Network**
Those long-distance routes in service as of April 1971 but were not continued by Amtrak and those long-distance routes that were previously operated by Amtrak but have since been discontinued.

**Enhanced Network**
The expanded and interconnected passenger rail network for rail service restoration and expansion. The Enhanced Network is comprised of the Baseline Network, portions of the Discontinued Network, plus new segments where long-distance passenger rail service has not previously operated.
Baseline Network

- **Existing Long-Distance Services**
- **Existing State-Supported Services**
- **Existing Northeast Corridor Services**
- **Baseline Projects** (defined on next slide)
- **Does Not Include Corridor ID**
Baseline Projects

Related rail projects that meet the following criteria:

- FRA-approved environmental review and decision
- Operating and capital investment commitment agreement(s) with host railroad(s)
- Full capital funding for the operating segment, including equipment
- Operating funding for initial service implementation

Or

- Project sponsor has a legal obligation with FRA to initiate service
Baseline Projects

- **Brightline**: Orlando, FL – Miami, FL via West Palm Beach, FL

- **California High-Speed Rail Early Operating Segment**: Merced, CA – Bakersfield, CA

- **Gulf Coast Passenger Rail**: New Orleans, LA – Mobile, AL

- **Twin Cities - Milwaukee - Chicago (TCMC) Regional Rail**: Minneapolis/ St. Paul, MN – Chicago, IL
Discontinued Routes - History of Evaluations and Cuts

- Examination of Long-Distance routes occurred during the formation of Amtrak in 1970
  - The passenger rail network was evaluated by US DOT and a system recommended to be continued by Amtrak
  - Criteria considered included: national transportation need (available alternative modes), demand, cost competitiveness, population of endpoint cities, profitability, and required capital investment

- The Amtrak Improvement Act of 1978 required US DOT to evaluate Amtrak’s network based on financial performance, resulting in removal of several routes
  - Two primary metrics for evaluating route performance were ridership density (passenger-mile/train mile) and loss per passenger-mile

- In 1996, Amtrak’s Intercity Strategic Business Unit (ISBU) performed another review of its Long-Distance network, resulting in the removal of additional routes
  - Criteria considered included financial performance, costs saved by elimination, route interconnectivity, and long-term growth and profit opportunities
## Discontinued Long-Distance Routes

### Pre-1971 Routes

<table>
<thead>
<tr>
<th>Route</th>
<th>Endpoints</th>
<th>Disc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Miami</td>
<td>Chicago, IL and Miami/ St. Petersburg, FL</td>
<td>1971</td>
</tr>
<tr>
<td>George Washington</td>
<td>St. Louis, MO and Washington, D.C.</td>
<td>1971</td>
</tr>
<tr>
<td>Pan American</td>
<td>New Orleans, LA and Cincinnati, IN</td>
<td>1971</td>
</tr>
<tr>
<td>San Francisco Chief</td>
<td>Richmond, CA and Chicago, IL</td>
<td>1971</td>
</tr>
</tbody>
</table>

### Former Amtrak Routes

<table>
<thead>
<tr>
<th>Route</th>
<th>Endpoints</th>
<th>Disc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>James Whitcomb Riley</td>
<td>Chicago, IL and Washington/ Newport News</td>
<td>1977</td>
</tr>
<tr>
<td>Mountaineer</td>
<td>Chicago, IL and Norfolk, VA</td>
<td>1977</td>
</tr>
<tr>
<td>Champion</td>
<td>St. Petersburg, FL and New York, NY</td>
<td>1979</td>
</tr>
<tr>
<td>Floridian</td>
<td>Chicago, IL and St. Petersburg/ Miami, FL</td>
<td>1979</td>
</tr>
<tr>
<td>Hilltopper</td>
<td>Catlettsburg, KY and Boston, MA</td>
<td>1979</td>
</tr>
<tr>
<td>Lone Star</td>
<td>Dallas/ Houston, TX and Chicago, IL</td>
<td>1979</td>
</tr>
<tr>
<td>National Limited</td>
<td>Kansas City, MO and New York/ Washington</td>
<td>1979</td>
</tr>
<tr>
<td>North Coast Hiawatha</td>
<td>Seattle, WA and Chicago, IL</td>
<td>1979</td>
</tr>
<tr>
<td>Inter-American</td>
<td>Laredo/ Houston, TX and Chicago, IL</td>
<td>1981</td>
</tr>
<tr>
<td>River Cities</td>
<td>New Orleans, LA and Kansas City, MO</td>
<td>1993</td>
</tr>
<tr>
<td>Gulf Breeze</td>
<td>Mobile, AL, and New York, NY</td>
<td>1995</td>
</tr>
<tr>
<td>Texas Eagle - Houston</td>
<td>Houston, TX and Chicago, IL</td>
<td>1995</td>
</tr>
<tr>
<td>Sunset Limited - West</td>
<td>Los Angeles, CA and New Orleans, LA</td>
<td>1996</td>
</tr>
<tr>
<td>Desert Wind</td>
<td>Los Angeles, CA and Chicago, IL</td>
<td>1997</td>
</tr>
<tr>
<td>Pioneer</td>
<td>Seattle, WA and Chicago, IL</td>
<td>1997</td>
</tr>
<tr>
<td>Silver Palm/ Palmetto</td>
<td>Miami, FL and New York, NY</td>
<td>2004</td>
</tr>
<tr>
<td>Sunset Limited - East</td>
<td>New Orleans, LA and Miami, FL</td>
<td>1996</td>
</tr>
<tr>
<td></td>
<td>New Orleans, LA and Orlando, FL</td>
<td>2005</td>
</tr>
<tr>
<td>Broadway Limited/ Three Rivers</td>
<td>Chicago, IL and New York, NY</td>
<td>2005</td>
</tr>
</tbody>
</table>
Baseline and Discontinued Routes

Existing Route and Station Data as well as Discontinued Route Data provided by Amtrak 2022;
Baseline Projects Data provided by FRA 2023
Discontinued Network

Existing Route and Station Data as well as Discontinued Route Data provided by Amtrak 2022;
Baseline Projects Data provided by FRA 2023

Baseline Network
Amtrak Routes
Long-Distance
Northeast Corridor
State-Supported
Baseline Projects
Brightline
DCCW
Metroliner
Twin Cities–Milwaukee–Chicago
C&NW M&O
ENHANCED NETWORK DEVELOPMENT
Legislative Considerations Guiding Enhanced Network Development

1. **Large and Small Communities**
   - Identify metropolitan area travel flows not served by the existing passenger rail network

2. **Focus on Rural**
   - Identify rural and disadvantaged communities not served by existing passenger rail network

3. **Enhance Connectivity**
   - Identify gaps in the passenger rail network, and reflect regional plans for passenger rail service

4. **Reflect Public Engagement**
   - Check that Enhanced Network reflects stakeholder and public inputs

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**Legislation Considerations:**

- **Identify metropolitan area travel flows not served by the existing passenger rail network**
- **Identify rural and disadvantaged communities not served by existing passenger rail network**
- **Identify gaps in the passenger rail network, and reflect regional plans for passenger rail service**
- **Check that Enhanced Network reflects stakeholder and public inputs**

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**Key Points:**

- Link and serve large and small communities as part of a regional rail network
- Advance the economic and social well-being of rural areas of the United States
- Provide enhanced connectivity for the national long-distance passenger rail system
- Reflect public engagement and local and regional support for restored passenger rail service

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**Visual Elements:**

- Map illustrating rail networks
- Photographs of rural train stations
- Diagram of rail connections

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**U.S. Department of Transportation**

**Federal Railroad Administration**
Identifying the segments that make up the Enhanced Network:

- Focusing on the process for identifying segments, not routes, that could make up an Enhanced Network
- Segments were aligned to the North American Rail Network (NARN)
- Main line track, branch line track, and disused track were eligible
  - Feasible for potential passenger rail operations
  - Avoids new "greenfield" alignments
Developing an Enhanced Network

- Step 1: Metropolitan Area Travel Flows
- Step 2: Rural Accessibility
- Step 3: Geographic Coverage/Network Connectivity
- Step 4: Stakeholder Input
- Additional Considerations: Discontinued Network
## Restoration and Expansion Concepts: Enhanced Network

<table>
<thead>
<tr>
<th>What Enhanced Network IS</th>
<th>What Enhanced Network IS NOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptual segments for future route development consideration</td>
<td>Proposed network of rail routes, station locations</td>
</tr>
<tr>
<td>Consistent with legislative considerations</td>
<td>Rail operations and service characteristics (e.g., train consists, speeds, frequency)</td>
</tr>
<tr>
<td>Aligned to the North American Rail Network</td>
<td>On new “greenfield” alignments</td>
</tr>
<tr>
<td>Within the contiguous states</td>
<td>Extended into Canada or Mexico</td>
</tr>
</tbody>
</table>
Definitions of Segments and Routes

**Focus today is on identifying segments that could make up an Enhanced Network**

**Segment**
- Represents any portion of the NARN identified as part of the Existing, Baseline, or Enhanced Network
- Can be any length

**Route**
- Made up of segments
- Start and end in major markets
- Represents an existing or potential new long-distance route
- A long-distance route is over 750 miles in length
STEP 1 - METROPOLITAN AREA TRAVEL FLOWS
Step 1: Metropolitan Area Travel Flows

- Considers travel demand between Metropolitan Areas
- Based on Federal Highway Administration (FHWA) NextGen 2020 data:
  - Metropolitan area pairs with 500,000 annual trips or more on all modes
  - Trip length of 100 miles to 1,000 miles in length
  - Metropolitan area pairs not served directly by rail in the Existing Network

Among long-distance riders, 79 percent of trips are 100 to 1,000 miles in length

Does not include Auto Train
Step 1 of 4: Metropolitan Area Travel Flows

Trips without a direct rail connection

Amtrak 2022; FRA 2023; Travel Demand Data provided by Federal Highway Administration (FHWA) NextGen 2020 data

Legend
Baseline Network
Amtrak Routes
- Long-Distance
- Northeast Corridor
- State-Supported
Committed Projects
- Brightline
- Gulf Coast Passenger Rail
- Twin Cities-Milwaukee-Chicago

Travel Flows
- 500,000 to 1,000,000
- 1,000,001 to 2,000,000
- 2,000,001 to 3,000,000
- 3,000,001 to 5,000,000
- 5,000,001 to 10,000,000
- >10,000,000

Amtrak 2022; FRA 2023; Travel Demand Data provided by Federal Highway Administration (FHWA) NextGen 2020 data
Step 1 of 4: Metropolitan Area Travel Flows
Developing a Conceptual Enhanced Network

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
Segment Options

- Segments connecting similar end points but different intermediate markets
- Will be further evaluated to recommend one segment option to move forward in future route analysis tasks

Atlanta - Savannah, GA
  - North alignment connecting Savannah, GA via Augusta, GA
  - Middle alignment connecting Savannah, GA via Macon, GA
  - South alignment connecting south of Savannah, GA via Macon, GA

Birmingham - Mobile, AL
  - Alignment connecting Birmingham - Mobile via the shortest path, or
  - Alignment connecting Birmingham - Mobile via Montgomery, AL
Step 1 of 4: Metropolitan Area Travel Flows

Developing a Conceptual Enhanced Network

Legend

Baseline Network
- Amtrak Routes
- Long-Distance
- Northeast Corridor
- State-Supported

Baseline Projects
- Brightline
- Gulf Coast Passenger Rail
- Twin Cities-Minneapolis-Chicago
- CAHSR MOS

Enhanced Network
- Segments
- Segment Options

Existing Route and Station Data provided by Amtrak 2022; Baseline Projects Data provided by FRA 2023
STEP 2: RURAL ACCESSIBILITY
Step 2: Rural Accessibility

Considers those rural and disadvantaged communities not served by the existing passenger rail network

<table>
<thead>
<tr>
<th>Rural Counties</th>
<th>Tribal Lands</th>
<th>USDOT Justice 40 Disadvantaged Communities</th>
</tr>
</thead>
</table>
| • Counties outside Core-Based Statistical Areas (CBSAs) - CBSAs include Metropolitan Statistical Areas and Micropolitan Statistical Areas | • American Indian and Alaska Native Land  
• American Indian Tribal Subdivisions  
• Bureau of Indian Affairs Regional Boundaries  
• Oklahoma Tribal Statistical Areas | • Low-income  
• Transportation disadvantaged  
• Health disadvantaged |
Rural counties:
- Non-Core-Based Statistical Areas are county designations that represent "rural" areas
- Counties outside Metropolitan Statistical Areas and Micropolitan Statistical Areas

Amtrak 2022; FRA 2023; U.S. Census Bureau: 2021 Housing Patterns and Core-Based Statistical Areas
Step 2 of 4: Rural Accessibility
Non-Core-Based Statistical Areas

Legend

Baseline Network
- Amtrak Routes
- Long-Distance
- Northwest Corridor
- State-Supported

Baseline Projects
- Brightline
- Gulf Coast Passenger Rail
- Twin Cities-Minneapolis-Chicago
- CAHSR MOS

Rural Accessibility
- Non-CBSA (non-Core-Based Statistical Area)

Amtrak 2022; FRA 2023; U.S. Census Bureau: 2021 Housing Patterns and Core-Based Statistical Areas
Tribal lands:
- Consists of those tribal census tracks and tribal block groups defined by the Census Bureau.

Tribal lands include:
- American Indian Land
- American Indian Tribal Subdivisions
- Bureau of Indian Affairs Regional Boundaries
- Oklahoma Tribal Statistical Areas
Amtrak 2022; FRA 2023; U.S. Census Bureau: 2021 Housing Patterns and Core-Based Statistical Areas; 2020 American Indian Area Boundaries, 2020 Decennial Census
USDOT Justice 40 Disadvantaged areas:
- Low-income
- Health or transportation access disadvantaged communities

Justice 40 Disadvantaged areas include:
- Low-income communities
- Areas with limited access to healthcare or transportation

These areas are defined by the USDOT Justice 40 Initiative, using data from Amtrak 2022; FRA 2023; U.S. Census Bureau: 2021 Housing Patterns and Core-Based Statistical Areas; 2020 American Indian Area Boundaries; 2020 Decennial Census; Census Tracts defined as Transportation Disadvantaged or Health Disadvantaged based on the U.S. DOT Justice 40 Initiative: 2019 ACS Data (2015-2019 5-year estimates, 2010 Census Tract Shapefiles).
Step 2 of 4: Rural Accessibility

Justice 40 Disadvantaged

Amtrak 2022; FRA 2023; U.S. Census Bureau: 2021 Housing Patterns and Core-Based Statistical Areas; 2020 American Indian Area Boundaries; 2020Decennial Census; Census Tracts defined as Transportation Disadvantaged or Health Disadvantaged based on the U.S. DOT Justice 40 Initiative: 2019 ACS Data (2015-2019 5-year estimates, 2010 Census Tract Shapefiles).
Step 2 of 4: Rural Accessibility
Developing a Conceptual Enhanced Network

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.

Legend
Baseline Network
Amtrak Routes
- Long-Distance
- State-Supported
Baseline Projects
- Brightline
- Gulf Coast Passenger Rail
- Twin Cities-Minneapolis-Chicago
- CAHSR IOS

Baseline Network
- Non-CBSA (non-Core-Based Statistical Area)
- Tribal Lands
- Justice 40 Disadvantaged

Enhanced Network
- Segments
- Segment Options

Step 2 of 4: Rural Accessibility
Developing a Conceptual Enhanced Network


Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
Segment Options

- Segments connecting similar end points but different intermediate markets
- Will be further evaluated to determine one segment option to move forward in future route analysis tasks

- Cheyenne, WY – Billings, MT
  - East alignment connecting east of Billings, MT via Gillette, WY
  - West alignment connecting west of Billings, MT via Casper, WY

- Helena & Butte, MT
  - Connection via Butte, MT as per the discontinued North Coast Hiawatha on disused track, or
  - Connection via Helena, MT on main line track
Step 2 of 4: Rural Accessibility
Developing a Conceptual Enhanced Network

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
STEP 3 – GEOGRAPHIC COVERAGE/NETWORK CONNECTIVITY
**Step 3: Geographic Coverage/Network Connectivity**

Considers gaps in the passenger rail network and network connectivity:

- **Type of passenger rail service by state:**
  - No service
  - State-supported service
  - Long-distance service
  - NEC Service

- **Enhance network connectivity for long-distance passenger rail from Regional Rail Plans:**
  - Southwest Multi-State Study
  - Southeast Regional Rail Plan
  - Midwest Regional Rail Plan
  - NEC FUTURE

- **Regional Rail Plans may recommend corridors for high-frequency, regional, or network independent service**

- **The Long-Distance Service Study considered all recommendations from the regional rail plans**

- **Recommendations for regional or network independent service may be most relevant to long-distance service**
Step 3 of 4: Geographic Coverage

Baseline Network

Existing Route and Station Data provided by Amtrak 2022; Baseline Projects Data provided by FRA 2023
Step 3 of 4: Geographic Coverage

Rail Service by State

Legend

Baseline Network
Amtrak Routes
Long Distance
Northwest Corridor
State-Supported

Baseline Projects
Brightline
Gulf Coast Passenger Rail
Twin Cities-Minneapolis-Chicago
CAHSR MRS

Geographic Coverage

No Rail Service

Existing Route and Station Data provided by Amtrak 2022; Baseline Projects Data provided by FRA 2023
Long-Distance Service Study & Regional Rail Plans

**Regional Rail Plans**
- Supports statewide and regional planning for a specific region
- Focuses on high-performance corridors with higher operating speeds and frequencies than long-distance service
- Not constrained to the North American Rail Network

**FRA Long-Distance Service Study**
- Supports a national long-distance service network plan (for the contiguous 48 states)
- Focuses on long-distance rail service
- Constrained to the North American Rail Network

**Shared Elements**
- Supports a long-term systems plan
- Informs future intercity passenger rail corridor development
- Includes multi-state coordination
Step 3 of 4: Geographic Coverage

Regional Rail Plans
- Southwest Multi-State Study
- Southeast Regional Rail Plan
- Midwest Regional Rail Plan
- NEC Future

Amtrak 2022; FRA 2023; Regional Plan Data provided by FRA 2023
Step 3 of 4: Geographic Coverage

Developing a Conceptual Enhanced Network

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
Step 3 of 4: Geographic Coverage
Developing a Conceptual Enhanced Network

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.

Amtrak 2022; FRA 2023; Regional Plan Data provided by FRA 2023
Step 3 of 4: Geographic Coverage

Developing a Conceptual Enhanced Network

Existing Route and Station Data provided by Amtrak 2022; Baseline Projects Data provided by FRA 2023

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
STEP 4 – STAKEHOLDER INPUT
A total of 2,154 references to places were provided.
Top Places Suggested by Stakeholders

Yakima
Seattle
Spokane
Portland
Billings
Denver
Salt Lake City
Los Angeles
Las Vegas
Phoenix
Tucson
Dallas Fort Worth
New Orleans
San Antonio
El Paso
Houston
Wichita
Newton
Chicago
Kansas City
Twin Cities
St. Louis
Detroit
Sioux Falls
New York City
Pittsburgh
Washington DC
Montreal
Boston
Atlanta
Florida
Nashville
Miami
Jacksonville
Louisville

U.S. Department of Transportation
Federal Railroad Administration

FRA LONG-DISTANCE SERVICE STUDY
Top Places Suggested by Stakeholders

Top suggested places:
- Yakima
- Seattle
- Spokane
- Portland
- Billings
- Denver
- Salt Lake City
- Los Angeles
- Las Vegas
- Phoenix
- Tucson
- Chicago
- Kansas City
- Twin Cities
- St. Louis
- Detroit
- Sioux Falls
- New York City
- Pittsburgh
- Washington DC
- Montreal
- Boston
- Atlanta
- Florida
- Nashville
- Miami
- Jacksonville
- Louisville
- Dallas Fort Worth
- New Orleans
- San Antonio
- El Paso
- Houston
- Wichita
- Newton

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
CONSIDERATION: DISCONTINUED NETWORK
Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
ENHANCED NETWORK
The Enhanced Network includes all segments and segment options.

The Enhanced Network represents a wide range of possibilities for further consideration in developing route and service options.

Segments in the Enhanced Network are conceptual building blocks for consideration in developing potential new long-distance routes over 750 miles long.

New segments in the Enhanced Network do not constitute a replacement of state-supported efforts, such as those eligible under Corridor ID.

Potential new long-distance routes will serve some markets only at night due to the length of the route.
Conceptual Enhanced Network

Conceptual segments for future route development consideration

Segments are conceptual building blocks for consideration in developing potential new long-distance routes

Existing Route and Station Data provided by Amtrak 2022; Baseline Projects Data provided by FRA 2023
ENHANCED NETWORK DISCUSSION
COMPARISON OF ENHANCED AND BASELINE NETWORKS
Analyze the Enhanced Network

Compare the Enhanced Network to the Baseline Network

- Develop evaluation factors or "measures of effectiveness"
- Calculate the measures of effectiveness of the Baseline Network
- Calculate the measures of effectiveness of the Enhanced Network
- Compare the Enhanced Network to the Baseline Network
- Quantify how the Enhanced Network meets the goals and objectives
Evaluation Factor Ideas and Feedback

Regional Workshop participants identified factors that could be used to evaluate long-distance routes. These include:

- Number of connections a route would provide to enhance the national long-distance and intercity networks
- Number of connections to large and small communities
- Number of areas with higher-than-average disadvantaged populations
- Number of city pairs with highest ridership potential
- Schedule frequency and convenience
- Connections to airports and multimodal opportunities
- Number of connections to key destinations
- Economic benefits to communities along a route
Measures of Effectiveness

- Feedback on the evaluation factors from previous Regional Workshop participants informed the development of goals and objectives

- Goals and Objectives:
  - **Connectivity**
    - Increase Passenger Access to the National Passenger Rail Network
    - Improve passenger rail geographic coverage
  - **Large and Small Communities**
    - Increase long-distance passenger rail connections to small communities
  - **Economic and Social Well-Being of Rural Areas**
    - Enhance access for historically disadvantaged populations
    - Enhance access for tribal areas
    - Enhance rural access to services

- The Project Team developed measures of effectiveness for the goals and objectives to evaluate the Enhanced Network
Measures of Effectiveness

<table>
<thead>
<tr>
<th>Population with access to passenger rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 100 most populated Metropolitan Statistical Areas (MSAs)</td>
</tr>
<tr>
<td>- Rural areas</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of States with access to passenger rail</th>
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<table>
<thead>
<tr>
<th>Number of Congressional districts with access to passenger rail</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Rural population with access to passenger rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Transportation and health disadvantaged</td>
</tr>
<tr>
<td>- Below the poverty threshold</td>
</tr>
<tr>
<td>- Areas of persistent poverty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Population on tribal lands with access to passenger rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Below the poverty threshold</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number of services connected to passenger rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Public/private higher education institutions</td>
</tr>
<tr>
<td>- Medical centers</td>
</tr>
<tr>
<td>- National parks</td>
</tr>
</tbody>
</table>
Catchment Area: To support network-level analysis, catchment areas are defined as a 30-mile radius where the station or new segment is in an MSA, or a 50-mile radius where the station or new segment is in a non-MSA area.
GOAL: CONNECTIVITY

INCREASE PASSENGER ACCESS TO THE NATIONAL PASSENGER RAIL NETWORK

IMPROVE PASSENGER RAIL GEOGRAPHIC COVERAGE
Objective: Increase Passenger Access to the National Passenger Rail Network

- Scope: Total U.S. Population
- 43 million more people could have access to passenger rail services
- a 17% increase

Population of census tracts served by the Baseline Network or Enhanced Network
Source: U.S. Census Bureau. 2020 Decennial Census (census tracts)
**Goal: Connectivity**

**Objective:** Increase Passenger Access to the National Passenger Rail Network

- **Scope:** Population of the 100 Most Populous MSAs
- **18 million more people** could have access to passenger rail services
- **9% increase**

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**Population of census tracts served by the Baseline Network or Enhanced Network**

Source: U.S. Census Bureau. 2020 Decennial Census (census tracts and MSAs)

MSA: Metropolitan Statistical Areas – population greater than 50,000
Goal: Connectivity

Objective: Increase Passenger Access to the National Passenger Rail Network

- Scope: U.S Population Outside Urbanized Areas (i.e., Rural)
- 9 million more people could have access to passenger rail services
- A 52% increase

Rural: population outside of urbanized areas, located within neither Metropolitan Statistical Areas (MSAs) nor Micropolitan Statistical Areas (MMSAs)

Population of census tracts served by the Baseline Network or Enhanced Network Source: U.S. Census Bureau. 2020 Decennial Census (census tracts and Urbanized Area boundaries)
Goal: Connectivity

Objective: Improve passenger rail geographic coverage

- **2 additional states**
  - 48 states, as well the District of Columbia, could have access to passenger rail services

- **81 additional congressional districts**
  - 332 congressional districts could have access to passenger rail services

Source: U.S. Census Bureau. State and congressional district boundary shapefiles (2022)
GOAL: LARGE AND SMALL COMMUNITIES

INCREASE LONG-DISTANCE PASSENGER RAIL CONNECTIONS TO SMALL COMMUNITIES
Goal: Large and Small Communities

- Objective: Increase long-distance passenger rail connections to small communities
- Additional stations in the Enhanced Network could increase the connections to small communities and increase the connectivity between long-distance and state-supported services
- Stations will be identified as potential new long-distance routes using the Enhanced Network are developed later in the study
GOAL: ECONOMIC AND SOCIAL WELL-BEING OF RURAL AREAS

ENHANCE ACCESS FOR HISTORICALLY DISADVANTAGED POPULATIONS

ENHANCE ACCESS FOR TRIBAL AREAS

ENHANCE RURAL ACCESS TO SERVICES
Goal: Economic and Social Well-Being of Rural Areas

Objective: Enhance access for historically disadvantaged populations

- Scope: Population in rural Transportation Disadvantaged Areas (Justice 40)
- 5 million more people could have access to passenger rail services
- a 42% increase

Population of census tracts outside urbanized areas served by the Baseline or Enhanced Network that are defined as Transportation Disadvantaged based on the U.S. DOT Justice 40 Initiative: ACS Data (2015-2019 5-year estimates, 2010 Census Tract Shapefiles).
**Goal: Economic and Social Well-Being of Rural Areas**

**Objective:** Enhance access for historically disadvantaged populations

- **Scope:** Population in rural *Health Disadvantaged* Areas (Justice 40)
- **4 million more people** could have access to passenger rail services
- **a 63% increase**

Population of census tracts outside urbanized areas served by the Baseline or Enhanced Network that are defined as Health Disadvantaged based on the U.S. DOT Justice 40 Initiative: ACS Data (2015-2019 5-year estimates, 2010 Census Tract Shapefiles).

Goal: Economic and Social Well-Being of Rural Areas

Objective: Enhance access for historically disadvantaged populations

- Scope: Rural Population Living Below the Poverty Threshold (2020)

- 1 million more people could have access to passenger rail services

- a 59% increase

Population of census tracts living below the poverty threshold outside of urbanized areas served by the Baseline Network or Enhanced Network

Source: U.S. Census Bureau. 2020 Decennial Census, U.S. Census Bureau. 2020 Urbanized Areas boundaries, U.S. Census Bureau

Rural: population outside of urbanized areas
Goal: Economic and Social Well-Being of Rural Areas

Objective: Enhance access for historically disadvantaged populations

- Scope: Rural Population in Areas of Persistent Poverty (2018) - these are areas with high rates over poverty sustained over time
  - 5 million more people could have access to passenger rail services
  - a 61% increase

Population of census tracts in areas of persistent poverty and outside of urbanized areas served by the Baseline Network or Enhanced Network

Source: U.S. Census Bureau. Census Tract with a poverty rate of at least 20 percent as measured by the 2014–2018 5-year data series available from the American Community Survey of the Bureau of the Census. 2020 Urbanized Areas boundaries were used to identify rural areas, U.S. Census Bureau (using 2010 census tract boundaries)

Rural: population outside of urbanized areas
Objective: Enhance access for tribal areas

- Scope: Population on U.S. Tribal Lands
- 2 million more people could have access to passenger rail services
- a 111% increase

Total Population (2020) on Tribal Lands: 5M

Population in census tracts covered by American Indian Tribal area boundaries served by the Baseline Network or Enhanced Network

Source: U.S. Census Bureau. 2020 Decennial Census (census tracts), U.S. Census Bureau. American Indian/Native Alaskan/Native Hawaiian Areas boundaries

Tribal lands include American Indian and Alaska Native Land, American Indian Tribal Subdivisions, Bureau of Indian Affairs Regional Boundaries, Oklahoma Tribal Statistical Areas
Goal: Economic and Social Well-Being of Rural Areas

Objective: Enhance access for tribal areas

- **Scope:** U.S. Population on Tribal Lands Living Below the Poverty Threshold
  - **340 thousand more people**
    could have access to passenger rail services
  - A **106% increase**

Population below the poverty threshold in census tracts covered by American Indian Tribal area boundaries served by the Baseline Network or Enhanced Source: U.S. Census Bureau. 2020 Decennial Census (census tracts), U.S. Census Bureau. American Indian/Native Alaskan/Native Hawaiian Areas boundaries

Tribal lands include American Indian and Alaska Native Land, American Indian Tribal Subdivisions, Bureau of Indian Affairs Regional Boundaries, Oklahoma Tribal Statistical Areas
Goal: Economic and Social Well-Being of Rural Areas

Objective: Enhance rural access to services

- **600 additional institutions**
  - 3,300 public and private not-for-profit higher education institutions could have access to passenger rail services
  - a **22% increase**

- **2 million more students**
  - a total enrollment of 16 million could have access to passenger rail services
  - a **16% increase**

\[
\begin{array}{|c|c|c|}
\hline
\text{Baseline Network} & \text{Enhanced Network} \\
\hline
2,700 Public/Private Higher Education & +600 Additional Institutions (22%) & \boxed{3,300} \text{ will have access to passenger rail} \\
\hline
14 million Current Enrollment & +2 million More Students, Higher Education (16%) & \boxed{16} \text{ million will have access to passenger rail} \\
\hline
\end{array}
\]

Count of public and private not-for-profit institutions and sum of total enrollment of institutions in census tracts served by the Baseline Network or Enhanced Network

Objective: Enhance rural access to services

- **73 more Medical Centers**
  → 576 medical centers could have access to passenger rail services

- **a 15% increase**

- **11 more National Parks**
  → 73 National Parks, Recreation Areas, and Preserves could have access to passenger rail services

- **an 18% increase**

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**Baseline Network**  
**Enhanced Network**

<table>
<thead>
<tr>
<th>Count of medical facilities (only Level I or II trauma centers, facilities with &quot;Cancer&quot; and/or &quot;Veteran&quot; in the name) census tracts served by the Baseline Network or Enhanced Network; Count of national parks (Parks, Recreation Areas, and Preserves) served by the Baseline Network or Enhanced Network (within 100-miles)</th>
<th>Baseline Network</th>
<th>Enhanced Network</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medical Centers</td>
<td>+73</td>
<td>= 580</td>
</tr>
<tr>
<td>National Parks, Recreation Areas, and Preserves</td>
<td>+11</td>
<td>= 73</td>
</tr>
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</table>

Count of medical facilities (only Level I or II trauma centers, facilities with "Cancer" and/or "Veteran" in the name) census tracts served by the Baseline Network or Enhanced Network; Count of national parks (Parks, Recreation Areas, and Preserves) served by the Baseline Network or Enhanced Network (within 100-miles)

Source: U.S. Census Bureau. 2020 census tract boundaries, U.S. Dept. of Homeland Security 2023 (Locations), Homeland Infrastructure Foundation-Level Data Geoplatform (HIFLD), National Parks Service data created by Land Resources Division 2023

Medical Centers include VA Hospitals, Level I & II Trauma Centers, and Cancer Centers
LUNCH
ROUTE DEVELOPMENT AND FEEDBACK ACTIVITY
Interactive Activity: Creating Potential New Long-Distance Routes

- **Activity:** Create a new long-distance route using the Enhanced Network

- **Instructions for developing potential new long-distance routes:**
  - Routes begin and end in major market
  - Routes string together multiple markets
  - Routes generally go in one direction (i.e., avoid loops)
  - Routes are more than 750 miles
Example Potential New Long-Distance Route Development:
Chicago – Miami

Based on Market Demand
End Points: Chicago-Miami

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.

Amtrak 2022; FRA 2023; Travel Demand Data provided by Federal Highway Administration (FHWA) NextGen 2020 data.
End Points: Chicago-Miami
Approx. Distance: 1,400 miles

- Chicago – Indianapolis
- Indianapolis – Louisville
- Louisville – Nashville
- Nashville – Atlanta
- Atlanta – Jacksonville
- Jacksonville – Miami

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
End Points: Chicago-Miami
Approx. Distance: 1,400 miles

Chicago – Indianapolis
Indianapolis – Louisville
Louisville – Nashville
Nashville – Atlanta
Atlanta – Jacksonville
Jacksonville – Miami

Responds to demand
• Chicago – Atlanta
• Atlanta – Miami

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.
End Points: Chicago–Miami
Approx. Distance: 1,400 miles
- Chicago – Indianapolis
- Indianapolis – Louisville
- Louisville – Nashville
- Nashville – Atlanta
- Atlanta – Jacksonville
- Jacksonville – Miami

Responds to demand
- Chicago – Atlanta
- Atlanta – Miami

Segments are conceptual building blocks for consideration in developing potential new long-distance routes.

Example Potential New Long-Distance Route Development: Chicago – Miami

Amtrak 2022; FRA 2023; Travel Demand Data provided by Federal Highway Administration (FHWA) NextGen 2020 data
STAKEHOLDER INSIGHTS FOR ONGOING FEEDBACK OPPORTUNITIES
Develop recommendations for methods by which Amtrak could work with local communities and organizations to develop activities and programs to continuously improve public use of intercity passenger rail service along each route.
Future Feedback Opportunities

- In moving the study forward, how can FRA and Amtrak best coordinate with stakeholders about long-distance service?

<table>
<thead>
<tr>
<th>Potential Area of Focus</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Long-Distance Service</td>
<td>• What types of stakeholder input are most essential?</td>
</tr>
<tr>
<td></td>
<td>• What groups should be involved?</td>
</tr>
<tr>
<td>Future Long-Distance Service</td>
<td>• What types of stakeholder input are most essential?</td>
</tr>
<tr>
<td></td>
<td>• What groups should be involved?</td>
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</table>
Examples of Current Structured Stakeholder Involvement Opportunities

- **State-Amtrak Intercity Passenger Rail Committee (SAIPRC)**
  - Directed by Congress to facilitate collaboration among members and oversee implementation of a standard cost-sharing methodology for State-Supported Intercity Passenger Rail Services
  - Multi-agency body; members include 20 agencies in 17 states, Amtrak, and FRA

- **Northeast Corridor (NEC) Commission**
  - Authorized by Congress, charged with developing a formula to allocate NEC capital and operating costs, make recommendations to Congress, and facilitate collaborative planning
  - 18 members, including representatives of each of the eight NEC states, the District of Columbia, Amtrak, and the U.S. DOT
Future Feedback Opportunities

Are there other examples of organizational or coordinating groups that have worked well for efforts like these?
NEXT STEPS
Next Steps

- Based on feedback received from this meeting and the other regions:
  - Confirm enhanced network based on stakeholder feedback
  - Route development

- For future meetings:
  - Review costs, benefits and financing information
  - Review draft recommendations and implementation strategies
  - Review prioritized routes

- Post all meeting materials on the project website
Next Steps for Stakeholders

- Encourage your communities and constituencies to review the meeting materials on the website
  - All presentations and summaries will be posted online after the completion of the meeting series

- Submit any feedback on the topics and materials from this meeting via the project website **by August 21** for inclusion in our analysis and report
  - Due to the breadth of the study, it may not be possible to respond to all feedback, but all feedback will be reviewed by the team and captured in our report
Long-Distance Service Study Engagement Schedule

Meeting 1
January-February 2023
Universe of Routes & Evaluation Factors

Meeting 2
Summer 2023
Enhanced Network Route Development

Meeting 3
Winter 2024
Route Identification

Meeting 4
TBD
Recommended Actions
FRA Long-Distance Service Study
Website: www.fralongdistancerailstudy.org
Email: contactus@fralongdistancerailstudy.org