

# Railroads



## Tags

Rail, NTAD, National Transportation Atlas Database, Transportation, Atlas, Database, NARN, Network, Lines, USA, National, North America

## Summary

North American Rail Network (NARN) can be used within the public, the federal government, rail industry, state DOTs, and academia for routing, mapping and analysis.

## Description

The North American Rail Network (NARN) Rail Lines dataset was created in 2016 and was updated on October 12, 2023 from the Federal Railroad Administration (FRA) and is part of the U.S. Department of Transportation (USDOT)/Bureau of Transportation Statistics (BTS) National Transportation Atlas Database (NTAD). The NARN Rail Lines dataset is a database that provides ownership, trackage rights, type, passenger, STRACNET, and geographic reference for North America's railway system at 1:24,000 or better within the United States. The data set covers all 50 States, the District of Columbia, Mexico, and Canada.

## Credits

Acknowledgment of the Federal Railroad Administration (FRA) and the Bureau of Transportation Statistics (BTS) [distributor].

## Use limitations

NTAD datasets are intended for public usage and are not for sale/resale

## Extent

|              |             |              |            |
|--------------|-------------|--------------|------------|
| <b>West</b>  | -130.359776 | <b>East</b>  | -63.228204 |
| <b>North</b> | 60.840431   | <b>South</b> | 17.913346  |

## Scale Range

|                             |               |
|-----------------------------|---------------|
| <b>Maximum (zoomed in)</b>  | 1:5,000       |
| <b>Minimum (zoomed out)</b> | 1:150,000,000 |

## Topics and Keywords

**THEMES OR CATEGORIES OF THE RESOURCE**      **transportation**

|                |                              |
|----------------|------------------------------|
| * CONTENT TYPE | Downloadable Data            |
| PLACE KEYWORDS | USA, National, North America |
| THEME KEYWORDS | transportation               |

THESAURUS

TITLE    ISO 19115 Topic Category

THEME KEYWORDS NGDA, National Geospatial Data Asset, Transportation

THESAURUS

TITLE NGDA Portfolio Themes

THEME KEYWORDS Rail, NTAD, National Transportation Atlas Database, Transportation, Atlas, Database, NARN, Network, Lines

## Citation

TITLE Railroads

PUBLICATION DATE 2023-10-16

PRESENTATION FORMATS digital map

FGDC GEOSPATIAL PRESENTATION FORMAT vector digital data

COLLECTION TITLE National Transportation Atlas Database

## Citation Contacts

RESPONSIBLE PARTY

ORGANIZATION'S NAME Federal Railroad Administration (FRA)

CONTACT'S ROLE originator

## Resource Details

DATASET LANGUAGES \* English (UNITED STATES)

STATUS completed

SPATIAL REPRESENTATION TYPE \* vector

PROCESSING ENVIRONMENT Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

CREDITS

Acknowledgment of the Federal Railroad Administration (FRA) and the Bureau of Transportation Statistics (BTS) [distributor].

ARCGIS ITEM PROPERTIES

\* NAME railroad\_centerline\_231016\_v8

## Extents

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

WEST LONGITUDE -168.283333

EAST LONGITUDE -52.266666999999998

NORTH LATITUDE 71.433333300000001

SOUTH LATITUDE 14.483333

EXTENT CONTAINS THE RESOURCE Yes

EXTENT

DESCRIPTION

compilation date

TEMPORAL EXTENT

DATE AND TIME 2016-01-01

EXTENT

GEOGRAPHIC EXTENT

BOUNDING RECTANGLE

EXTENT TYPE Extent used for searching

\* WEST LONGITUDE -130.359776  
\* EAST LONGITUDE -63.228204  
\* NORTH LATITUDE 60.840431  
\* SOUTH LATITUDE 17.913346  
\* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM

\* WEST LONGITUDE -14511583.884200  
\* EAST LONGITUDE -7038531.473100  
\* SOUTH LATITUDE 2027408.334000  
\* NORTH LATITUDE 8589275.476500  
\* EXTENT CONTAINS THE RESOURCE Yes

## Resource Points of Contact

POINT OF CONTACT

INDIVIDUAL'S NAME Raquel Wright  
ORGANIZATION'S NAME Federal Railroad Administration (FRA)  
CONTACT'S POSITION GIS Program Manager  
CONTACT'S ROLE point of contact

CONTACT INFORMATION

PHONE

VOICE 202-493-6415

ADDRESS

TYPE both  
DELIVERY POINT 1200 New Jersey Ave. SE  
CITY Washington  
ADMINISTRATIVE AREA DC  
POSTAL CODE 20590  
COUNTRY United States  
E-MAIL ADDRESS [raquel.wright@dot.gov](mailto:raquel.wright@dot.gov)

## Resource Maintenance

RESOURCE MAINTENANCE

UPDATE FREQUENCY as needed

## Resource Constraints

CONSTRAINTS

LIMITATIONS OF USE

NTAD datasets are intended for public usage and are not for sale/resale

LEGAL CONSTRAINTS

LIMITATIONS OF USE

Distribution Liability

ACCESS CONSTRAINTS other restrictions

OTHER CONSTRAINTS

unrestricted

## Spatial Reference

### ARCgis COORDINATE SYSTEM

\* TYPE Projected  
\* GEOGRAPHIC COORDINATE REFERENCE GCS\_WGS\_1984  
\* PROJECTION WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere  
\* COORDINATE REFERENCE DETAILS  
PROJECTED COORDINATE SYSTEM  
WELL-KNOWN IDENTIFIER 102100  
X ORIGIN -22041257.952553775  
Y ORIGIN -30241100  
XY SCALE 144148035.48642668  
Z ORIGIN -100000  
Z SCALE 10000  
M ORIGIN -100000  
M SCALE 10000  
XY TOLERANCE 0.001  
Z TOLERANCE 0.001  
M TOLERANCE 0.001  
HIGH PRECISION true  
LATEST WELL-KNOWN IDENTIFIER 3857  
WELL-KNOWN TEXT PROJCS["WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere",GEOGCS  
["GCS\_WGS\_1984",DATUM["D\_WGS\_1984",SPHEROID  
["WGS\_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT  
["Degree",0.0174532925199433]],PROJECTION["Mercator\_Auxiliary\_Sphere"],PARAMETER  
["False\_Easting",0.0],PARAMETER["False\_Northing",0.0],PARAMETER  
["Central\_Meridian",0.0],PARAMETER["Standard\_Parallel\_1",0.0],PARAMETER  
["Auxiliary\_Sphere\_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

### REFERENCE SYSTEM IDENTIFIER

\* VALUE 3857  
\* CODESPACE EPSG  
\* VERSION 8.8(9.3.1.2)

## Spatial Data Properties

### VECTOR

\* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only  
GEOMETRIC OBJECTS  
FEATURE CLASS NAME railroad\_centerline\_231016\_v8  
\* OBJECT TYPE composite  
\* OBJECT COUNT 83924

### ARCgis FEATURE CLASS PROPERTIES

FEATURE CLASS NAME railroad\_centerline\_231016\_v8  
\* FEATURE TYPE Simple  
\* GEOMETRY TYPE Polyline  
\* HAS TOPOLOGY FALSE  
\* FEATURE COUNT 83924  
\* SPATIAL INDEX TRUE  
\* LINEAR REFERENCING FALSE

## Data Quality

### SCOPE OF QUALITY INFORMATION

RESOURCE LEVEL dataset

### DATA QUALITY REPORT - CONCEPTUAL CONSISTENCY

#### MEASURE DESCRIPTION

Unknown

#### DATA QUALITY REPORT - COMPLETENESS OMISSION

##### MEASURE DESCRIPTION

Data set is considered complete for the information presented, as described in the abstract. Users are advised to read the rest of the metadata record carefully for additional details.

#### DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY

DIMENSION horizontal

##### MEASURE DESCRIPTION

Unknown

#### DATA QUALITY REPORT - ABSOLUTE EXTERNAL POSITIONAL ACCURACY

DIMENSION vertical

##### MEASURE DESCRIPTION

Unknown

## Lineage

#### PROCESS STEP

##### DESCRIPTION

The North American Rail Network was created using the preexisting FRA network 1:100k, the FRA Automated Track Inspection Program (ATIP) data, and the data provided to NGA by ORNL. The source data of the spatial features was based on FRA's ATIP foot by foot coordinates, where it existed, and the NGA/ORNL spatial content.

## Distribution

#### DISTRIBUTOR

##### CONTACT INFORMATION

ORGANIZATION'S NAME Bureau of Transportation Statistics

CONTACT'S POSITION NTAD Program Manager

CONTACT'S ROLE distributor

##### CONTACT INFORMATION

##### PHONE

VOICE none

##### ADDRESS

TYPE both

DELIVERY POINT 1200 New Jersey Ave. SE

CITY Washington

ADMINISTRATIVE AREA DC

POSTAL CODE 20590

COUNTRY US

E-MAIL ADDRESS [ntad@dot.gov](mailto:ntad@dot.gov)

#### AVAILABLE FORMAT

NAME Open Data Catalog

VERSION 1.0

SPECIFICATION download

FORMAT INFORMATION CONTENT An ESRI Geodatabase, ESRI shapefile, or spreadsheet.

FILE DECOMPRESSION TECHNIQUE ZIP

#### ORDERING PROCESS

TERMS AND FEES None. No fees are applicable for obtaining the dataset.

#### TRANSFER OPTIONS

##### ONLINE SOURCE

LOCATION <https://doi.org/10.21949/1519415>

DISTRIBUTOR

CONTACT INFORMATION

ORGANIZATION'S NAME Bureau of Transportation Statistics  
CONTACT'S POSITION NTAD Program Manager  
CONTACT'S ROLE distributor

CONTACT INFORMATION

PHONE

VOICE none

ADDRESS

TYPE both  
DELIVERY POINT 1200 New Jersey Ave. SE  
CITY Washington  
ADMINISTRATIVE AREA DC  
POSTAL CODE 20590  
COUNTRY US  
E-MAIL ADDRESS [ntad@dot.gov](mailto:ntad@dot.gov)

AVAILABLE FORMAT

NAME AZURE Cloud ArcGIS Server (OGC WMS)  
VERSION 1.3.0  
SPECIFICATION <https://www.ogc.org/standards/wms>  
FORMAT INFORMATION CONTENT OGC WMS Map Service for visualizing geospatial information

ORDERING PROCESS

TERMS AND FEES None. No fees are applicable for obtaining the dataset.

TRANSFER OPTIONS

ONLINE SOURCE

LOCATION <https://doi.org/10.21949/1519416>

DISTRIBUTOR

CONTACT INFORMATION

ORGANIZATION'S NAME Bureau of Transportation Statistics  
CONTACT'S POSITION NTAD Program Manager  
CONTACT'S ROLE distributor

CONTACT INFORMATION

PHONE

VOICE none

ADDRESS

TYPE both  
DELIVERY POINT 1200 New Jersey Ave. SE  
CITY Washington  
ADMINISTRATIVE AREA DC  
POSTAL CODE 20590  
COUNTRY US  
E-MAIL ADDRESS [ntad@dot.gov](mailto:ntad@dot.gov)

AVAILABLE FORMAT

NAME AZURE Cloud ArcGIS Server (OGC WFS)  
VERSION 1.0  
SPECIFICATION <https://www.ogc.org/standards/wfs>  
FORMAT INFORMATION CONTENT OGC WFS Map Service for visualizing geospatial information

ORDERING PROCESS

TERMS AND FEES None. No fees are applicable for obtaining the dataset.

TRANSFER OPTIONS

ONLINE SOURCE

LOCATION <https://doi.org/10.21949/1519417>

#### DISTRIBUTOR

##### CONTACT INFORMATION

ORGANIZATION'S NAME Bureau of Transportation Statistics

CONTACT'S POSITION NTAD Program Manager

CONTACT'S ROLE distributor

##### CONTACT INFORMATION

###### PHONE

VOICE none

###### ADDRESS

TYPE both

DELIVERY POINT 1200 New Jersey Ave. SE

CITY Washington

ADMINISTRATIVE AREA DC

POSTAL CODE 20590

COUNTRY US

E-MAIL ADDRESS [ntad@dot.gov](mailto:ntad@dot.gov)

#### AVAILABLE FORMAT

NAME AZURE Cloud ArcGIS Server Vector Tile Service

VERSION 1.0

SPECIFICATION <https://www.ogc.org/standards/wmts>

FORMAT INFORMATION CONTENT Vector Tile Service for visualizing geospatial information

#### ORDERING PROCESS

TERMS AND FEES None. No fees are applicable for obtaining the dataset.

#### TRANSFER OPTIONS

##### ONLINE SOURCE

LOCATION <https://doi.org/10.21949/1522251>

#### DISTRIBUTION FORMAT

\* NAME File Geodatabase Feature Class

## Fields

#### DETAILS FOR OBJECT [railroad\\_centerline\\_231016\\_v8](#)

\* TYPE Feature Class

\* ROW COUNT 83924

##### FIELD OBJECTID

\* ALIAS OBJECTID

\* DATA TYPE OID

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Internal feature number.

\* DESCRIPTION SOURCE

Esri

\* DESCRIPTION OF VALUES

Sequential unique whole numbers that are automatically generated.

FIELD SHAPE

\* ALIAS SHAPE

\* DATA TYPE Geometry

\* WIDTH 0

\* PRECISION 0

\* SCALE 0

\* FIELD DESCRIPTION

Feature geometry.

\* DESCRIPTION SOURCE

Esri

\* DESCRIPTION OF VALUES

Coordinates defining the features.

FIELD FRAARCID

\* ALIAS FRAARC ID

\* DATA TYPE Integer

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

FIELD FRFRANODE

\* ALIAS From FRA Node

\* DATA TYPE Integer

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

FIELD TOFRANODE

\* ALIAS To FRA Node

\* DATA TYPE Integer

\* WIDTH 4

\* PRECISION 0

\* SCALE 0

FIELD STFIPS

ALIAS State FIPS Code

\* DATA TYPE String

\* WIDTH 2

\* PRECISION 0

\* SCALE 0

FIELD CNTYFIPS

\* ALIAS County FIPS Code

\* DATA TYPE String

\* WIDTH 3

\* PRECISION 0

\* SCALE 0

FIELD STCNTYFIPS

\* ALIAS State and County FIPS Code

\* DATA TYPE String

\* WIDTH 5

\* PRECISION 0

\* SCALE 0

FIELD STATEAB

- \* ALIAS State Abbreviation
- \* DATA TYPE String
- \* WIDTH 2
- \* PRECISION 0
- \* SCALE 0

FIELD COUNTRY

- \* ALIAS Country
- \* DATA TYPE String
- \* WIDTH 2
- \* PRECISION 0
- \* SCALE 0

FIELD FRADISTRCT

- \* ALIAS FRA District
- \* DATA TYPE SmallInteger
- \* WIDTH 2
- \* PRECISION 0
- \* SCALE 0

FIELD RROWNER1

- \* ALIAS Owner 1
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD RROWNER2

- \* ALIAS Owner 2
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD RROWNER3

- \* ALIAS Owner 3
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS1

- \* ALIAS Track Rights 1
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS2

- \* ALIAS Track Rights 2
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS3

- \* ALIAS Track Rights 3
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS4

- \* ALIAS Track Rights 4
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS5

- \* ALIAS Track Rights 5
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS6

- \* ALIAS Track Rights 6
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS7

- \* ALIAS Track Rights 7
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS8

- \* ALIAS Track Rights 8
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD TRKRGHTS9

- \* ALIAS Track Rights 9
- \* DATA TYPE String
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD DIVISION

- \* ALIAS Division
- \* DATA TYPE String
- \* WIDTH 100
- \* PRECISION 0
- \* SCALE 0

FIELD SUBDIV

- \* ALIAS Subdivision
- \* DATA TYPE String
- \* WIDTH 100
- \* PRECISION 0
- \* SCALE 0

FIELD BRANCH

- \* ALIAS Branch
- \* DATA TYPE String
- \* WIDTH 100
- \* PRECISION 0
- \* SCALE 0

FIELD YARDNAME

- \* ALIAS Yard Name
- \* DATA TYPE String
- \* WIDTH 30
- \* PRECISION 0
- \* SCALE 0

FIELD PASSNGR

- \* ALIAS Passenger
- \* DATA TYPE String
- \* WIDTH 1
- \* PRECISION 0
- \* SCALE 0

FIELD STRACNET

- \* ALIAS STRACNET
- \* DATA TYPE String
- \* WIDTH 1
- \* PRECISION 0
- \* SCALE 0

FIELD TRACKS

- \* ALIAS Number of Tracks
- \* DATA TYPE Integer
- \* WIDTH 4
- \* PRECISION 0
- \* SCALE 0

FIELD NET

- \* ALIAS NET
- \* DATA TYPE String
- \* WIDTH 1
- \* PRECISION 0
- \* SCALE 0

FIELD MILES

- \* ALIAS Length (mi)
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

FIELD KM

- \* ALIAS Length (km)
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0

#### FIELD TIMEZONE

- \* ALIAS Time Zone
- \* DATA TYPE String
- \* WIDTH 1
- \* PRECISION 0
- \* SCALE 0

#### FIELD SHAPE\_Length

- \* ALIAS SHAPE\_Length
- \* DATA TYPE Double
- \* WIDTH 8
- \* PRECISION 0
- \* SCALE 0
- \* FIELD DESCRIPTION  
Length of feature in internal units.
- \* DESCRIPTION SOURCE  
Esri
- \* DESCRIPTION OF VALUES  
Positive real numbers that are automatically generated.

#### OVERVIEW DESCRIPTION

##### ENTITY AND ATTRIBUTE OVERVIEW

The North American Rail Network (NARN) Rail Lines dataset was created in 2016 and was updated on October 12, 2023 from the Federal Railroad Administration (FRA) and is part of the U.S. Department of Transportation (USDOT)/Bureau of Transportation Statistics (BTS) National Transportation Atlas Database (NTAD). The NARN Rail Lines dataset is a database that provides ownership, trackage rights, type, passenger, STRACNET, and geographic reference for North America's railway system at 1:24,000 or better within the United States. The data set covers all 50 States, the District of Columbia, Mexico, and Canada.

##### ENTITY AND ATTRIBUTE DETAIL CITATION

<https://doi.org/10.21949/1528950>

## References

#### AGGREGATE INFORMATION

ASSOCIATION TYPE larger work citation

#### AGGREGATE RESOURCE NAME

TITLE National Transportation Atlas Database  
PUBLICATION DATE 2023-10-27  
RESPONSIBLE PARTY  
ORGANIZATION'S NAME Bureau of Transportation Statistics  
CONTACT'S ROLE originator

## Metadata Details

- \* METADATA LANGUAGE English (UNITED STATES)
- METADATA CHARACTER SET utf8 - 8 bit UCS Transfer Format
- SCOPE OF THE DATA DESCRIBED BY THE METADATA dataset
- SCOPE NAME \* dataset
- LAST UPDATE 2023-10-13
- ARCGIS METADATA PROPERTIES
  - METADATA FORMAT ArcGIS 1.0
  - METADATA STYLE FGDC CSDGM Metadata
  - STANDARD OR PROFILE USED TO EDIT METADATA FGDC
  - CREATED IN ARCGIS FOR THE ITEM 2023-10-31
  - LAST MODIFIED IN ARCGIS FOR THE ITEM 2023-11-28
  - AUTOMATIC UPDATES
    - HAVE BEEN PERFORMED Yes
    - LAST UPDATE 2023-11-28

# Metadata Contacts

## METADATA CONTACT

INDIVIDUAL'S NAME   Raquel Wright  
ORGANIZATION'S NAME   Federal Railroad Administration (FRA)  
CONTACT'S POSITION   GIS Program Manager  
CONTACT'S ROLE   point of contact

## CONTACT INFORMATION

PHONE  
  VOICE   202-493-6415

ADDRESS  
  TYPE   both  
  DELIVERY POINT   1200 New Jersey Ave. SE  
  CITY   Washington  
  ADMINISTRATIVE AREA   DC  
  POSTAL CODE   20590  
  COUNTRY   United States  
  E-MAIL ADDRESS   [raquel.wright@dot.gov](mailto:raquel.wright@dot.gov)

## FGDC Metadata (read-only) ▼