



Comparison of Probe Data Source

Attributes / Functions	NPMRDS	Vehicle Probe Project
Nature of Probe Data	Vendor is contracted to provide only observed field probe data for travel time. If no field data is available, no travel time is reported. No data modeling, filtering, blending or smoothing is applied to ensure that only raw observed values are included in this data set.	Vendor is contracted to provide best estimate of speed and travel time for all time periods. If density of probe data is insufficient, modeling and historical data may be used in addition to field data to estimate traffic conditions.
Geographic Coverage	<p>Monthly Travel Time File includes National Highway System for All 50 States, DC, Puerto Rico Crossings into Canada & Mexico Covering 486,000 miles</p> <p>Interstate Archive includes Interstate Highways for All 50 States, DC, Puerto Rico Crossings into CAN & MEX Covering 100,250 miles</p>	<p>Approximately 7000 freeway miles & 32,000 arterial miles in states within the I-95 Corridor Coalition (including complete major road coverage in SC, NC, VA, DC, MD, NJ and RI) <Click here for map></p> <p>140 Highway to Highway Interchanges, and grade separated Special Use Lanes Data from October 2008</p>
Archive Timeframe	<p>Archived data sets processed continuously and posted each month for download starting with July 2013. Interstate archive covers Oct 2011-June 2013</p>	<p>As coverage is added, archive becomes active back to January 2009. Some agencies have data back to October 2008. Archive data is updated continuously from real-time data feed</p>
Archive Access	<p>Available from HERE's Electronic Data Delivery (EDD) Site once license agreement is completed. Users can download regions, states, shape file for visualization, and documentation on demand. States are grouped into 4 regions and files are compressed to facilitate download.</p>	<p>Available from two sources: VPP Suite Massive Data Downloader (https://vpp.ritis.org/suite/) with customizable fields and date ranges with aggregations from 1-minute to 1-hour. Email sent when data is ready for download. VPP Monitoring Site (www.i95.inrix.com): 5-minute data by state and date range. Email sent when data is ready for download.</p>
Temporal Reporting	<p>Passenger, Freight and Combined travel times are generated in 5 minute increments. No data modeling, blending or smoothing is applied to ensure that only raw observed values are included in this data set. If no probe is available for the 5 minute period, no archive record is created.</p>	<p>1-minute intervals Other archive aggregation levels are available from VPP Suite (5-minute, 10-minute, 15-minutes, 30-minute, and 1-hour). Data is provided 24x7 regardless of confidence in data.</p>
Data Elements	<p>Passenger vehicle travel times. Freight vehicle travel times. Combined freight and passenger vehicle travel times. Traffic Message Code definitions</p>	<p>Speed, Travel time Reference speed, Historical speed Score (indicates if data is real-time, imputed, estimated, or historical average) Confidence Value Traffic Message Code definitions</p>



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Data Accuracy / Validation	<p>Quality validation plan developed by a 3rd party (Minnesota Traffic Observatory at the University of Minnesota). Quality testing results to be provided on a quarterly basis.</p> <p>Results are available to users on EDD site.</p>	<p>Specifications-based procurement</p> <p>Comprehensive data validation program dating to 2008</p> <p>Results publically available online at: http://tinyurl.com/vpp-validation</p>
Confidence Indicator	<p>Specifications of NPMRDS do not include a separate confidence indicator. No modeling or historical data is used in this data set when observed values are not present.</p>	<p>Both “Score” and “Confidence Value” reflect confidence in base data</p>
Shape Files	<p>Enhanced NHS Shape File developed by HERE is included with travel time file to represent the road network. The Shape File includes road network geometry including double-digitized roads (dual carriageway), ramps, and accurate geospatial placement. Traffic is reported based on Standard TMC codes and cross-referenced to links in the shape file.</p>	<p>May be purchased separately.</p>
Highway Segments	<p>Standard Traffic Message Channel Codes, utilizing internal codes to represent both internal and external segments.</p> <p>Combined Shape File and Travel Time Data allow for accurate traffic placement, conflation, and mapping.</p>	<p>Standard Traffic Message Channel Codes, including both internal and external segment codes provided.</p> <p>Geodetic coordinates of end points sufficient for conflation, sequencing, and basic mapping</p>
Tools, Products and Visualizations for Archive Data	<p>Tools are not provided as a part of the FHWA contract. Tools for analysis and visualization may be provided by 3rd parties.</p> <p>Other associated products (real-time data, speed limits, incidents, historic patterns, etc.) may be obtained separately by agencies from HERE and are not currently a part of NPMRDS.</p>	<p>Monitoring site: www.i95.inrix.com</p> <p>VPP suite: https://vpp.ritis.org/suite/ provides a variety of tools to view and visualize data and create performance measures.</p> <p>Map-tile overlays.</p>
Size of Archive	<p>Initial size for nationwide coverage is 38.4 GB (Interstate and NHS through August 2013)</p> <p>Actual monthly file sizes vary based on size of state.</p> <p>Large State: ~400MB-1.5GB</p> <p>Medium State: ~ 100MB-400MB</p> <p>Small State: ~0.3MB-100MB</p>	<p>Current archive is 19TB and is growing at 21GB/day. As additional states/agencies purchase data, the rate of change will increase.</p>



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Cost	<p>Provided in perpetuity at no cost to states and metropolitan planning organizations under FHWA program.</p> <p>Licensed users may access any or all states.</p>	<p>Once real-time data is procured, archive data is licensed in perpetuity for any Coalition member.</p> <p>2013 real-time data subscription rates: Freeways are ~\$750 per centerline mile/yr.</p> <p>Full state or region-wide coverage is 25% on top off all freeways.</p>
Data Licensing Process	<p>USDOT/FHWA, State DOTs and MPOs execute the HERE/NPMRDS license agreement to gain access to the NPMRDS data set</p>	<p>Coalition members and their partners execute the VPP Data Use Agreement to gain access to data/services: https://vpp.ritis.org/suite/dua/</p> <p>Usage is relatively unrestricted, except for resale.</p>
Contacts and URLs	<p>FHWA and HERE provide support covering data download, technical support, and usage through quarterly webinars, technical support calls, emails, and documentation.</p> <p>The Quick Access Guide and other documentation are available on the HERE EDD Site.</p> <p>Nicole Katsikides, Freight Performance Measures Program Manager; nicole.katskides@dot.gov or 202.366.6993</p> <p>Vidya Mysore, Freight Analysis and Modeling Specialist; vidya.mysore@dot.gov or 404.562.3929</p> <p>Rich Taylor, Operations Performance Measures and Management Program Manager; rich.taylor@dot.gov or 202.366.1327</p> <p>Operations Performance Measures and Management website: http://www.ops.fhwa.dot.gov/perf_measurement/index.htm</p> <p>Freight Performance Measures web site: http://www.ops.fhwa.dot.gov/freight/freight_analysis/perform_meas/index.htm</p> <p>HERE Data Download Support: mailto:TCS@navteq.com</p> <p>HERE Data Set Up Technical Support: b2bsupport@navteq.com</p> <p>HERE License Agreement Support: heretraffic.nhsdata@here.com</p>	<p>UMD CATT provides admin and tech support for data feeds. VPP Quick Start Guide</p> <p>VPP Suite Screencast: https://vpp.ritis.org/suite/screencast/</p> <p>VPP-Suite: vpp-support@ritis.org</p> <p>INRIX : support@inrix.com</p>
Data Type	Archived traffic data	Real-time and archived traffic data