

# America's Marine Highway Route Designations

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### Marine Highway M-5 (AK)

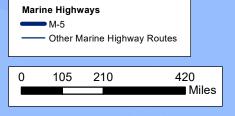


north of Bellingham, WA.

#### Attributes:

This route provides an alternative to the circuitous 2400-mile land route from the State of Washington to the State of Alaska by way of Canada. Although continuously undergoing improvements, the land route also poses more challenges than typical interstates. It is narrow and winding in some places, experiences loose gravel breaks and has areas without center lines and shoulders, all of which can limit reliability, speed and capacity.

This Marine Highway route serving this Route already hosts about 90 percent of the interstate freight shipments (excluding petroleum) originating in or destined for Alaska and handles substantial vehicle and passenger traffic. Water transportation also provides the primary link for intrastate freight shipments to the Aleutian Island chain which are vital to the communities served by this route.



Projection: NAD 1983 State Plane Alaska

#### Data Sources:

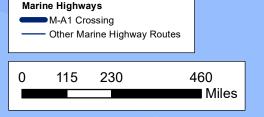
- International Boundaries: IPUMS
- (https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International
   Marine Highways: MARAD/DOT





#### Attributes:

Numerous locations in the State of Alaska face geographical challenges making the movement of both passengers and trucks into and out of communities circuitous and difficult. Two such locations are Port MacKenzie and Tyonek, both on Knik Arm near Anchorage, which flows into Cook Inlet and out to the Pacific Ocean. Waterborne transit times to these locations can be shorter than the land based route around the bay and inlet.



Projection: NAD 1983 State Plane Alaska

#### Data Sources:

- International Boundaries: IPUMS
- (https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International
   Marine Highways: MARAD/DOT



**Sponsors:** California Department of Transportation (Caltrans) and Oregon Department of Transportation (ODOT), Oregon Business Development Department (OBDD)

**Supporters:** Pacific Northwest Waterways Association, California Marine Affairs and Navigation Conference, Humboldt Bay Harbor, Recreation, and Conservation District/Port of Humboldt Bay, Port of Skagit County, WA, Skagit County Board of Commissioners, Town of La Conner, WA, and Swinomish Tribal Community.

Landside Route Served: Interstate-5

### **Route Description:**

The M-5 Route includes the Pacific Ocean coastal waters, connecting commercial navigation channels, ports, and harbors from San Diego, CA, to the US-Canada border north of Seattle, WA. It spans Washington, Oregon, and California along the West Coast. It connects to the M-84 Route at Astoria, OR, and the M-580 Route at Oakland, CA.

NORTH PACIFIC OCEAN

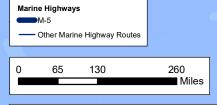
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#### Attributes:

This Route contains several areas identified by the U.S. Department of Transportation (U.S. DOT) as having considerable annual truck hours of delay, most notably in the urban areas of California, Portland, Oregon, and Seattle, WA. U.S. DOT reports that Southern California and the Pacific Northwest are also plagued with freight rail congestion. Total domestic trade movements between the three States along the I-5 Route are expected to grow from 145 million tons per year to 366 million tons by 2030, exacerbating existing challenges.

Navigable coastal waters that parallel the entire I-5 Route, combined with numerous deep and safe rivers, bays, and ports, can help to accommodate some of this expected increase in traffic, reducing landside travel delays and greenhouse gas emissions along this essential freight route.





Projection: USA Contiguous Albers Equal Area Conic

Data Sources:
1. International Boundaries: IPUMS

(https://international.ipums.org/international/gis.shtml)

Bathymetry data: Michael Baker International
 Marine Highways: MARAD/DOT



Sponsor: Port of Stockton, California

**Supporters:** Bay Area Air Quality Management District, San Joaquin Valley Air Pollution Control District, Port of Oakland, and the Port of West Sacramento

Landside Route Served: Interstate-580

### **Route Description:**

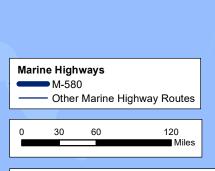
The M-580 Route connects to the M-5 route and includes the San Joaquin and Sacramento Rivers, and connecting commercial navigation channels, ports, and harbors, in Northern California from Sacramento to Oakland.

#### NORTH PACIFIC OCEAN

#### Attributes:

I-580 is one of the most congested highways in the nation, and has been identified by the U.S. Department of Transportation as having significant annual truck hours of delay. Approximately 25 percent of the Port of Oakland's volume travels to and from the San Joaquin Valley of California, an area already recognized for some of the country's worst air pollution. The Port of Oakland's volume is expected to increase and further exacerbate the Valley's congestion and air quality issues.

An increased movement of freight by water could help to relieve this situation. In 2007, nearly 3.4 million tons of waterborne cargo, mainly bulk goods, moved through the Port of Stockton via the Stockton Deepwater Ship Channel and San Joaquin River, underscoring the potential capacity of this waterway system. One example of the potential for waterborne freight movements along this Route is a proposed marine highway service between the Ports of Oakland, Stockton, and West Sacramento. Fully implemented, it could eliminate180,000 truck trips from I-580, I-80, and I-205 annually, saving approximately 7-million gallons of fuel and reducing air emissions in the process.



USA Contiguous Albers Equal Area Conic

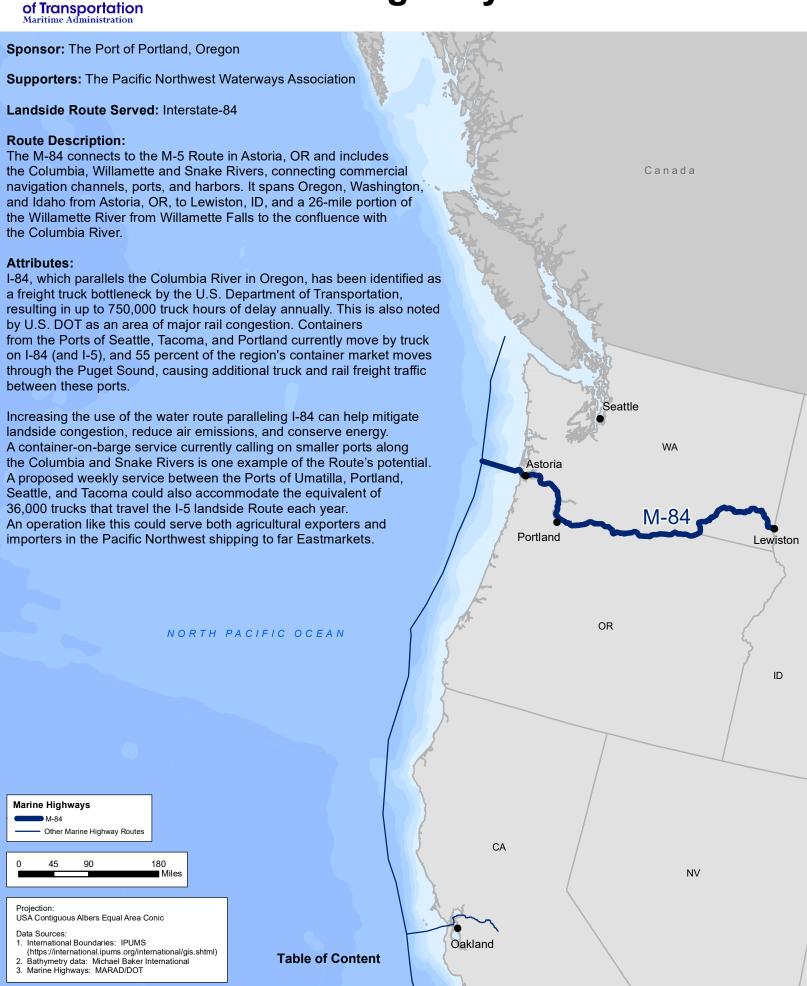
Data Sources:
1. International Boundaries: IPUMS

(https://international.ipums.org/international/gis.shtml)

Bathymetry data: Michael Baker International
 Marine Highways: MARAD/DOT









Sponsors: The Port Authority of Kansas City and Missouri DOT Supporters: Kansas DOT, the Mid-America Regional Council, St. Joseph Area Transportation Study Organization, Missouri Department of Economic Development, the Inland River Ports and Terminals Association and the Nebraska City Dock Board. Landside Routes Served: I-29, I-35, I-70, and I-49 **Route Description:** The M-29 Marine Highway Route establishes a connection between the middle section of the Missouri River in Sioux City, Iowa and the M-70 Marine Highway Route at Kansas City, Missouri. IA Attributes: Kansas City is a regional freight hub and home to the Nation's second largest rail center and third largest trucking center. The M-29 Route will provide a third transportation option for regional freight movement between Kansas City's intermodal infrastructure and shippers in Missouri, Kansas, Iowa, Nebraska, South Dakota and Minnesota. It has the potential to contribute to a safe, cost efficient and environmentally sustainable regional transportation system. Increasing freight transportation on the Missouri River, both north to Sioux City, Iowa and east to the M-29 Mississippi River, can serve to slow freight traffic growth on local roads, interstate highways, railroads and bridges in the surrounding counties. The M-29 Route will provide a crucial linkage to the larger M-70 Route, serving areas previously unconnected to that Route, as well as strengthening the M-70 Route itself by encouraging increased utilization. This will ease congestion between Missouri and Kansas, in other cities adjacent to the Missouri River such as Omaha, Nebraska and Sioux City, Iowa, and throughout the Midwest region in general. M - 29Kansas City KS Saint Louis MO Marine Highways Other Marine Highway Routes Tulsa 20 40 80 OK ■ Miles Projection: USA Contiguous Albers Equal Area Conic **AR** Data Sources: International Boundaries: IPUMS (https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International **Table of Content** 3. Marine Highways: MARAD/DOT



**Sponsors:** Illinois Department of Transportation, lowa Department of Transportation, Minnesota Department of Transportation, Missouri Department of Transportation, and Wisconsin Department of Transportation Supporters: Inland Rivers Ports and Terminals Association and Upper Mississippi River Basin Association

Landside Routes Served: Interstate-35, Interstate-94, (includes U.S. 61, Missouri State Route 27, Iowa State Route 27, andI-35)

### **Route Description:**

The M-35, which can commonly be referred to as "Waterway of the Saints" Marine Highway Route, links the Upper Mississippi River with the existing M-55 Route. The M-35 Route runs from Lock/Mile 1 on the Mississippi River in Minneapolis, MN to the confluence of the Mississippi and Illinois Rivers in Grafton, Illinois, where the M-55 Route begins. Together, the M-35 and M-55 provide an all-water route from the beginning of the Mississippi River to the Gulf of Mexico.

#### Attributes:

This M-35 is a major hub for freight tonnage transported by truck to some of theregion's major metropolitan areas such as Minneapolis-St. Paul, MN, Chicago, IL, and St. Louis, MO. By 2040, the U.S. Department of Transportation predicts that several major highway segments (e.g., I-70 in Missouri, I-80 in lowa, and I-90 and I-94 from Chicago to Minneapolis) will experience more recurring peak-period congestion and high volume truck segments on the National Highway System that carry more than 8,500 trucks per day.

Water transportation is an important part of the Upper Mississippi River region's freight network. The M-35 promotes domestic and international trade by establishing a strong link and other connections to the Gulf of Mexico. For example, in 2011, approximately 61.2 million short tons of cargo were transported on the M-35, compared to 60.7 million tons in 2010 (domestic and foreign). The states along the M-35 use the Upper Mississippi River to ship commodities to as many as 15 adjacent or nearby states.

Miles



Minneapolis MN WI IA IL Kansas City Saint Louis MO Projection: USA Contiguous Albers Equal Area Conic **Data Sources** International Boundaries: IPUMS (https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International Marine Highways: MARAD/DOT

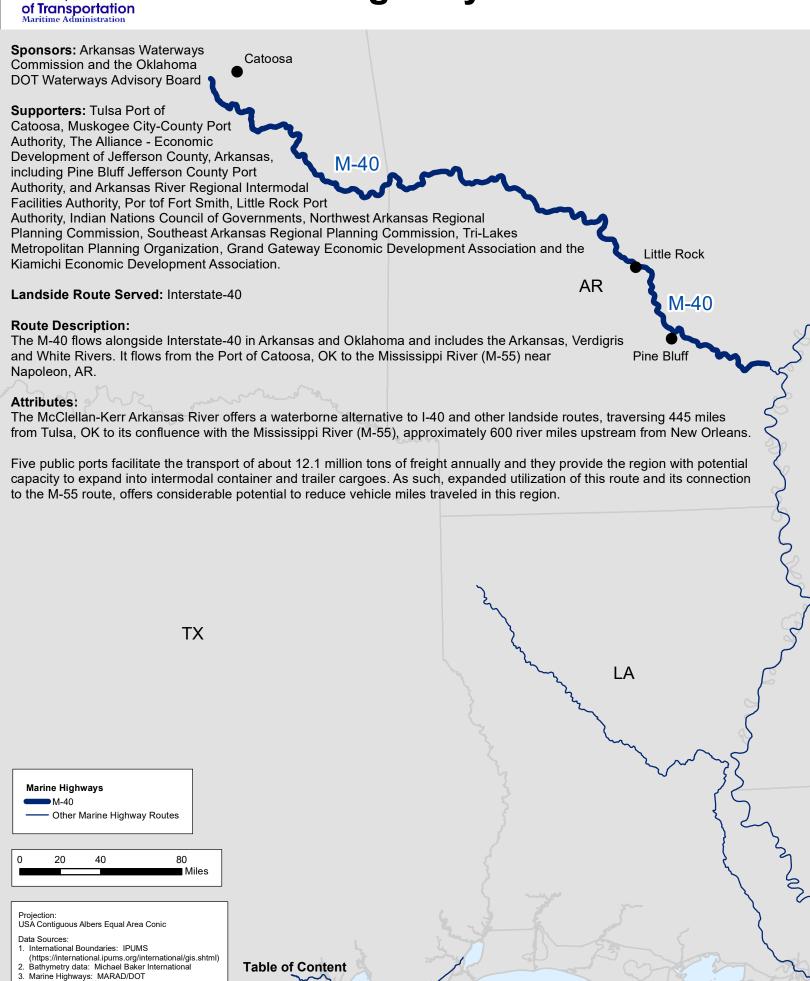
Marine Highways

M-35

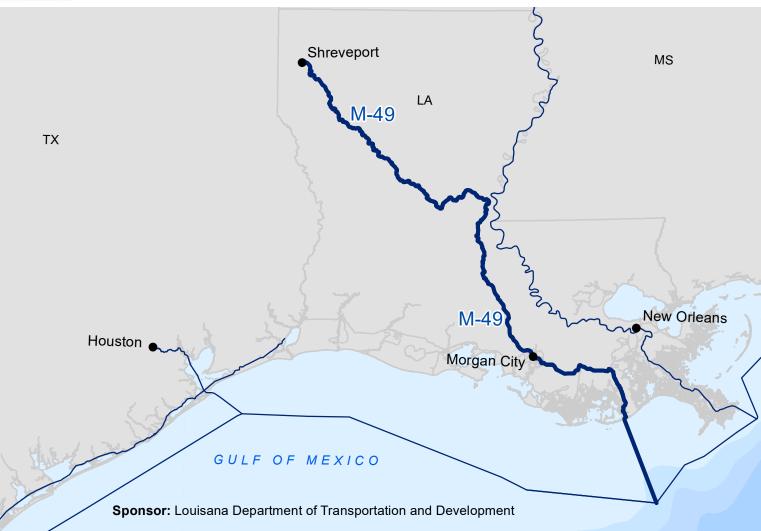
Other Marine Highway Routes

0 30 60 120









**Supporters:** NE Louisiana Economic Development Foundation, Rapides Area Planning Commission, the Port of Morgan City, Natchitoches Parish, Port of New Orleans, Port of Greater Baton Rouge, Port of Krotz Springs, and the Caddo/Bossier Port Commission.

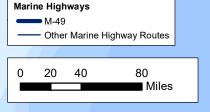
Landside Route Served: Interstate-49

### **Route Description:**

The M-49 Route includes the Atchafalaya River, the J. Bennett Johnson Waterway, and connecting commercial navigation channels, ports, and harbors. It spans southwest Louisiana from Morgan City, LA, to Shreveport along US Highway 90 and Interstate 49. It connects to the M-10 Route at MorganCity.

#### Attributes:

This Route serves four South Louisiana ports, including Port Fourchon, Port of West St. Mary, Morgan City, and the Terrebonne Port Commission (Houma), transporting significant volumes of freight along the landside route. From 2000 to 2006, the Route experienced a 19 percent increase in vehicle traffic, of which approximately 20 percent was truck traffic, clearly indicating an upward trend in freight and congestion. The J. Bennett Johnston Waterway (formerly known as the Red River Waterway) moved 9.1 million short tons (7.5 billion ton-miles) of freight in 2007, demonstrating the Route's potential capacity for waterborne goods movement. However, neither the J. Bennett Johnston Waterway nor Bayou Teche currently have container or trailer marine services. A more efficient freight distribution system could have significant benefits to the region.



Projection:

NAD 1983 State Plane N. Louisiana

#### Data Sources:

- International Boundaries: IPUMS
- (https://international.ipums.org/international/gis.shtml)
  2. Bathymetry data: Michael Baker International
- Marine Highways: MARAD/DOT



Sponsors: Missouri and Illinois Departments of Transportation

Supporters: Southeast Missouri Regional Port Authority and the

Ohio Department of Transportation

Landside Route Served: Interstate-55

#### **Route Description:**

The M-55 Route includes the Mississippi and Illinois Rivers from New Orleans, LA, via St. Louis, MO, to Chicago, IL, through Louisiana, Mississippi, Arkansas, Tennessee, Missouri, and Illinois. It includes connecting commercial navigation channels, ports, and harbors. It connects to the M-90 Route at Chicago, the M-40 Route at Napoleon, AR, crosses the M-70 Route at St. Louis, MO, and meets the M-10 Route at New Orleans, LA.

#### Attributes:

At 2,348 miles in length, the Mississippi River is the 2nd longest river in the U.S. and 92 percent of the nation's agricultural exports are produced in its basin. Sixty percent of all U.S. grain exports move on the Mississippi River and the largest port in the United States (by tonnage) is located on the Mississippi at LaPlace, LA. The Port of New Orleans handled 229,067 containers (TEUs) in 2008, most of which also move inland on truck and rail. The U.S. Department of Transportation indicates that this Route is plaqued with major freight truck bottlenecks at several points along its route. including the metropolitan areas of Chicago, St. Louis, Baton Rouge, and New Orleans, causing millions of hours in truck delay each year. In addition, U.S. DOT found that freight rail congestion is problematic for both in the Chicago and St. Louis areas. Even in rural segments, traffic studies on portions of I-55 in Southeast Missouri found that trucks account for approximately 50 percent of all daily vehicle movements.

The increased use of the Marine Highway component of the Route in this area has the potential to reduce air emissions, conserve energy, lower highway maintenance costs, and enhance safety, although key infrastructure, including locks and dams, require modernization.

ΤX

Mexico

Marine Highways M-55 Other Marine Highway Routes 65 130 260 Miles

Data Sources:

USA Contiguous Albers Equal Area Conic

1. International Boundaries: IPUMS (https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International

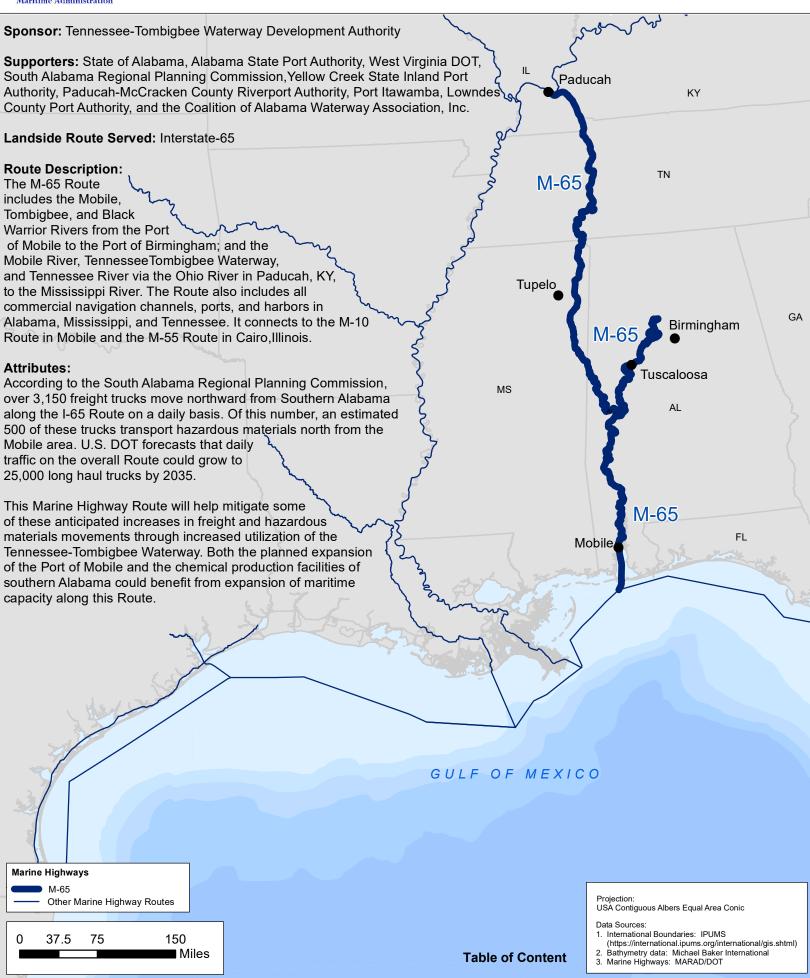
3. Marine Highways: MARAD/DOT



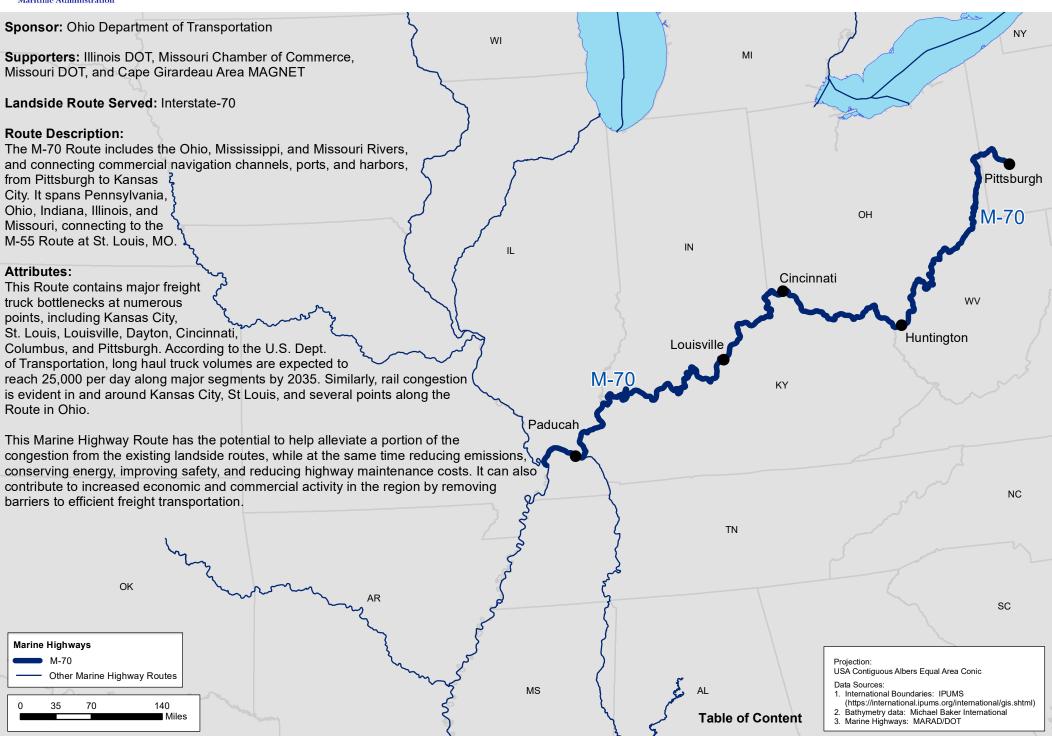
Minneapolis

MN

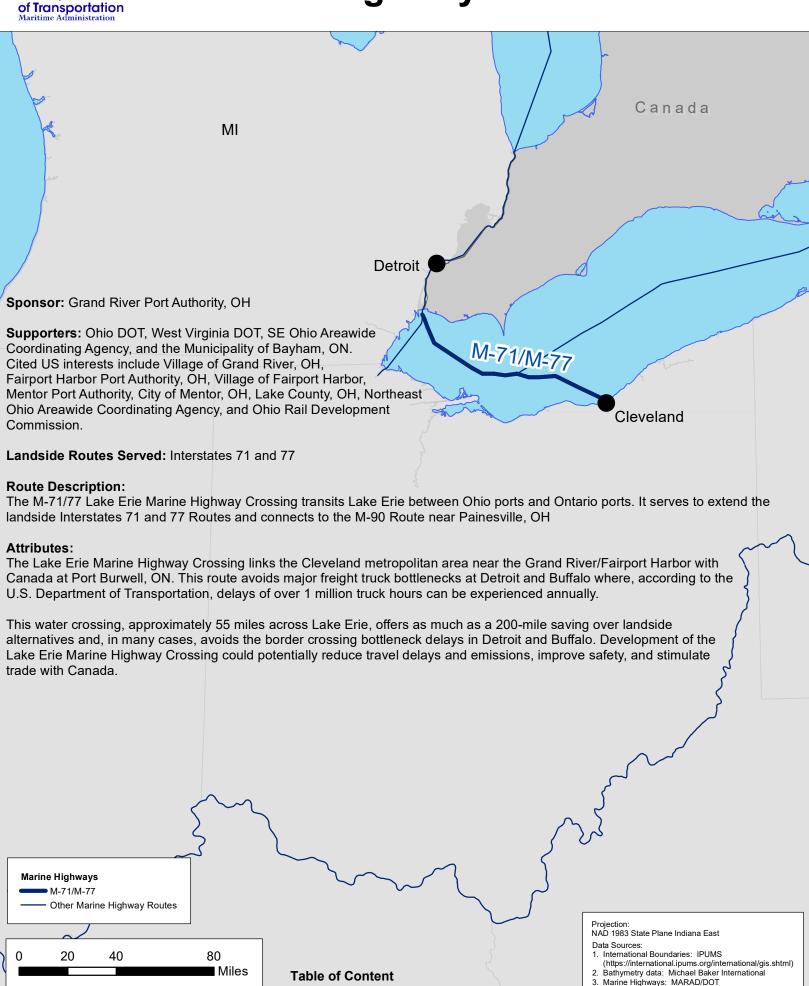




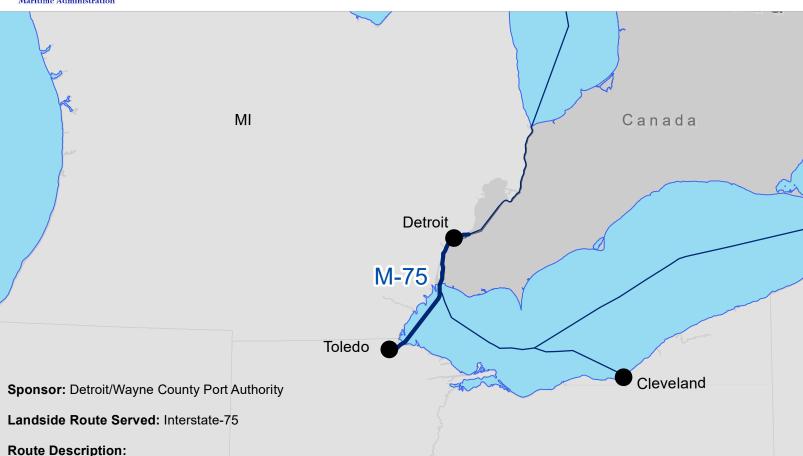










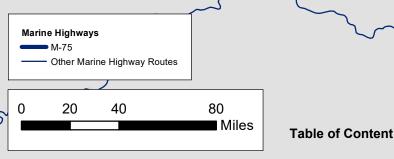


The M-75 Crossing Includes the Detroit River and Lake Erie, from Detroit, MI to Toledo, OH, and connecting commercial navigation channels, ports, and harbors.

#### Attributes:

The Detroit/Windsor gateway is the busiest international border route on the continent. This border crossing handles more than 3 million commercial trucks annually, with the volume of trade in excess of \$122 billion. In addition, more than one million passenger vehicles used the gateway last year. It is also the source of significant traffic bottlenecks. The Ambassador Bridge and the Detroit/WindsorTunnel are the only two crossings between Detroit and Windsor. Disruption of either the tunnel or the bridge due to an accident or incident often result in significant delays. Furthermore, both the bridge and tunnel have prohibitions on hazardous materials, requiring these vehicles to travel over 100 miles to a landside alternative.

This very short water crossing has the potential to add both capacity and redundancy at this critical transportation chokepoint. A small freight service already transports a limited number of trucks (primarily carrying hazardous materials) and a passenger ferry also contributes to relieving some of the congestion. It is possible that, for a fraction of the infrastructure costs, water services on this Marine Highway Route could be a valuable alternative to the landside routes available today. Another example of the potential of this route is a new service which began in 2008 that provided 30 new barge transits between the Port of Detroit and eastern Canada, providing a "water bridge" for many trucks that would otherwise be adding to landside traffic.



NAD 1983 State Plane Ohio North

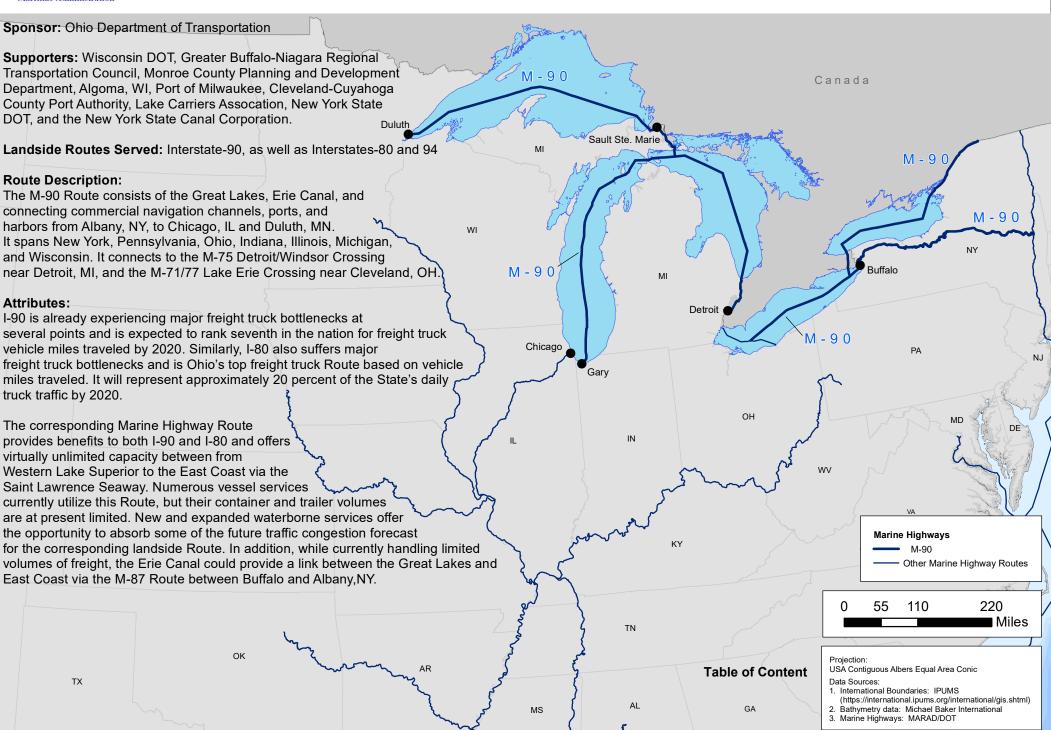
International Boundaries: IPUMS

(https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International

Data Sources:

3. Marine Highways: MARAD/DOT









Sponsor: Mississippi Department of Transportation

Supporters: Florida DOT, Texas DOT, Louisiana DOT, NW Louisiana Economic Development Foundation, South Alabama Regional Planning Commission, Port of Jacksonville, Port of Tampa, Port of Pensacola, Port of Pascagoula, Port of Morgan City, Port of New Orleans, St. Bernard Terminal and Harbor District, Port of Lake Charles, Port of Houston Authority, Port of Brownsville, and the Gulf Intracoastal Canal Association.

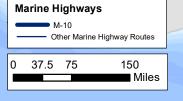
Landside Route Served: Interstate-10

#### **Route Description:**

The M-10 Route includes the Gulf of Mexico, the Gulf Intracoastal Waterway, and connecting commercial navigation channels, ports, and harbors. It streches from Brownsville, TX, to Jacksonville and Port Manatee, FL, and includes the states of Texas, Louisiana, Mississippi, Alabama, and Florida. It connects to the M-49 Route at Morgan City, LA, the M-65 Route in Mobile, AL, and the M-55 in New Orleans, LA.

#### Attributes:

The I-10 Route (including secondary roads between Houston and Brownsville and I-75 on Florida's West Coastand extending to the Tampa/Port Manatee area) parallels the U.S. Gulf Coast, accommodating considerable east-west freight. The U.S. Department of Transportation has identified major freight truck bottlenecks at several points along this Route, including in and around Houston, New Orleans, and Tampa. Freight rail congestion is also a challenge in and around the Houston area. The National I-10 Freight Study shows 400 miles of the Route already operating at an unacceptable level of service. Route traffic is expected to grow significantly by 2025. Fortunately, the extensive network of coastal, intracoastal, and inland waterways along this Route can offer relief to the existing and projected travel delays. Although there are already numerous maritime operations along this Route, a very low percentage carry containerized or roll-on/roll-off freight. However, these existing limited services demonstrate that marine highway operations in this Route are possible. In addition, large volumes of hazardous materials move along this Route, which, if transported by water, could improve safety and security.



Projection: USA Contiguous Albers Equal Area Conic

Data Sources:

- 1. International Boundaries: IPUMS
- (https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International
   Marine Highways: MARAD/DOT



**Sponsor:** Chambers County Galveston Bay

Supporters: Chambers County Improvement District No.1 and Chambers-Liberty Counties Navigation District

Landside Routes Served: I-10 and TX-146

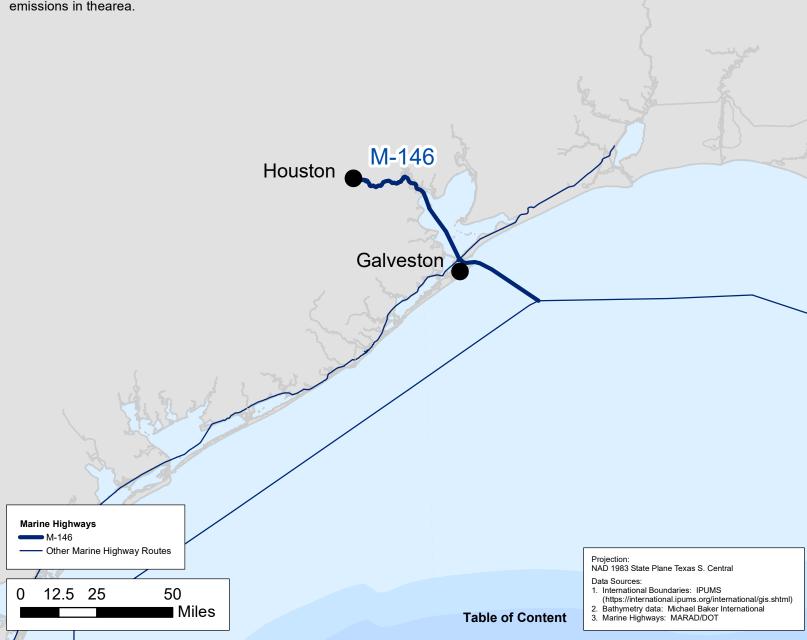
### **Route Description:**

The M-146 Marine Highway Route includes the navigable waters between the Cedar Crossing Industrial Park in Chambers County, Texas and the Port of Houston. The route is located in southeast Texas, along the Gulf of Mexico on Galveston Bay. These commercially navigable waters provide a direct route from the Houston Ship channel to the Cedar Crossing Industrial Park, one of the largest industrial parks in the nation.

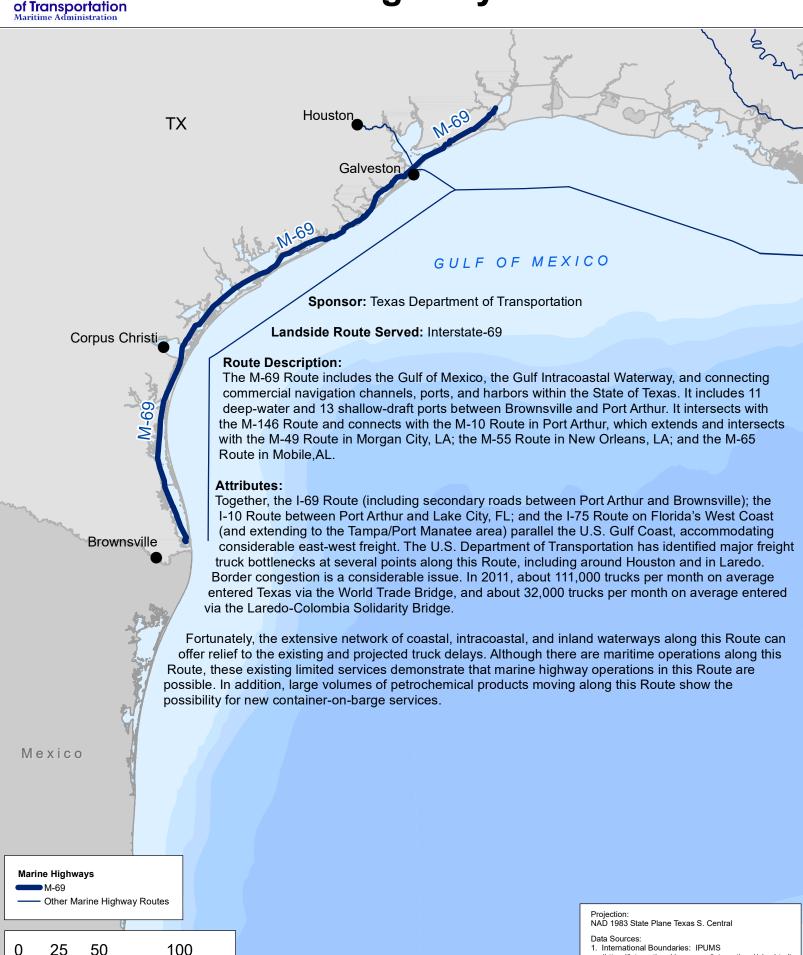
#### Attributes:

Traffic congestion is a major issue in the area, as both residential commuters and commercial long and short-haulvehicles utilize the roadways. Trucking companies serve many industry leaders with distribution centers in Chambers County such as Bayer, Wal-Mart, Home Depot, ExxonMobil, and JSW.

The M-146 Marine Highway Route designation recognizes the importance of the waterway to these industries as an alternative to moving containers on the region's already congested road and railways. The regional industries already use barges to transport containers moved between the Port of Houston and distribution centers instead of by way of on-road trucks, and they plan to expand usage of the container-on-barge services to reduce traffic congestion, health and safety hazards, and greenhouse gas







■ Miles

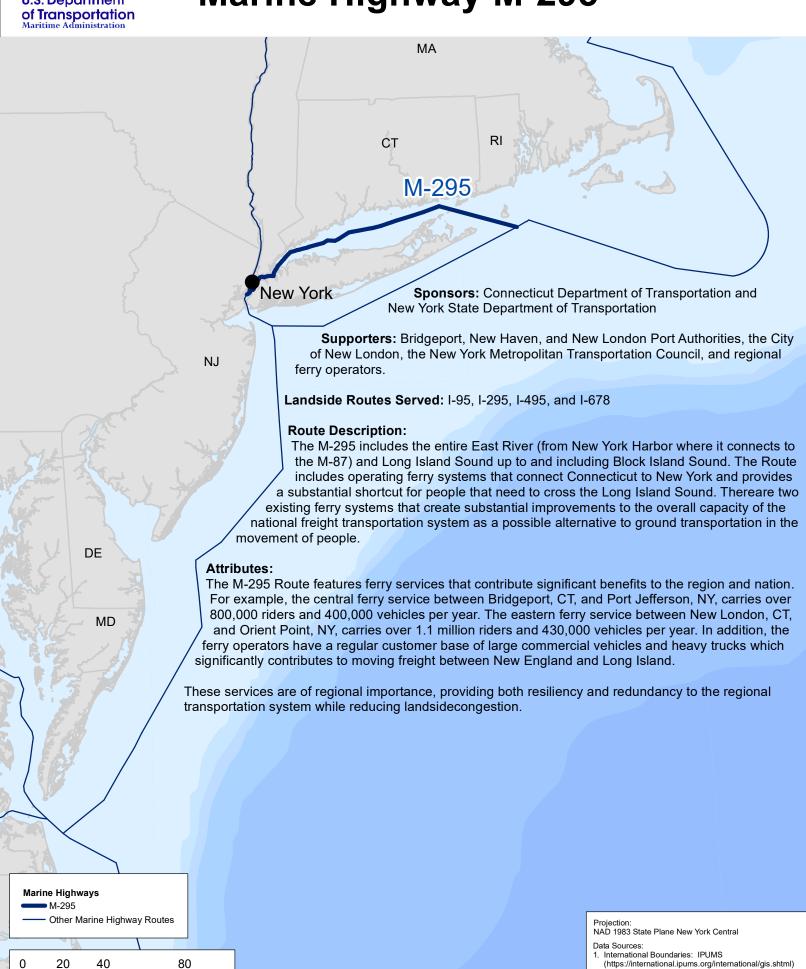
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(https://international.ipums.org/international/gis.shtml)

Bathymetry data: Michael Baker International

Marine Highways: MARAD/DOT





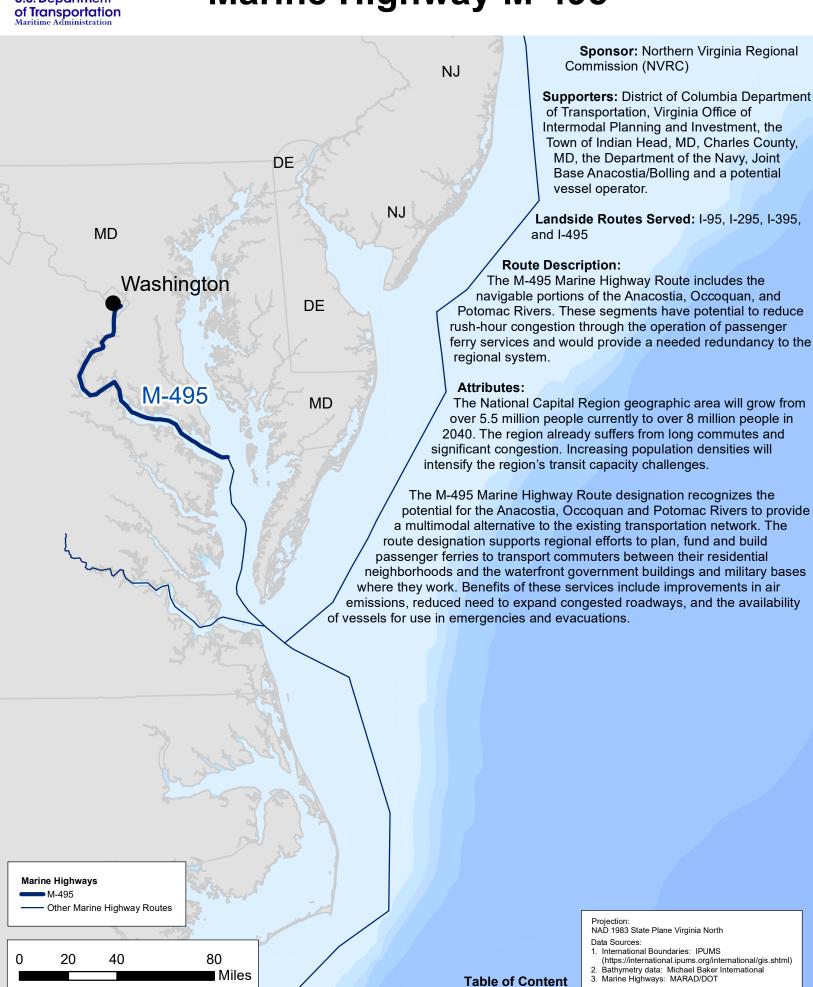
■ Miles

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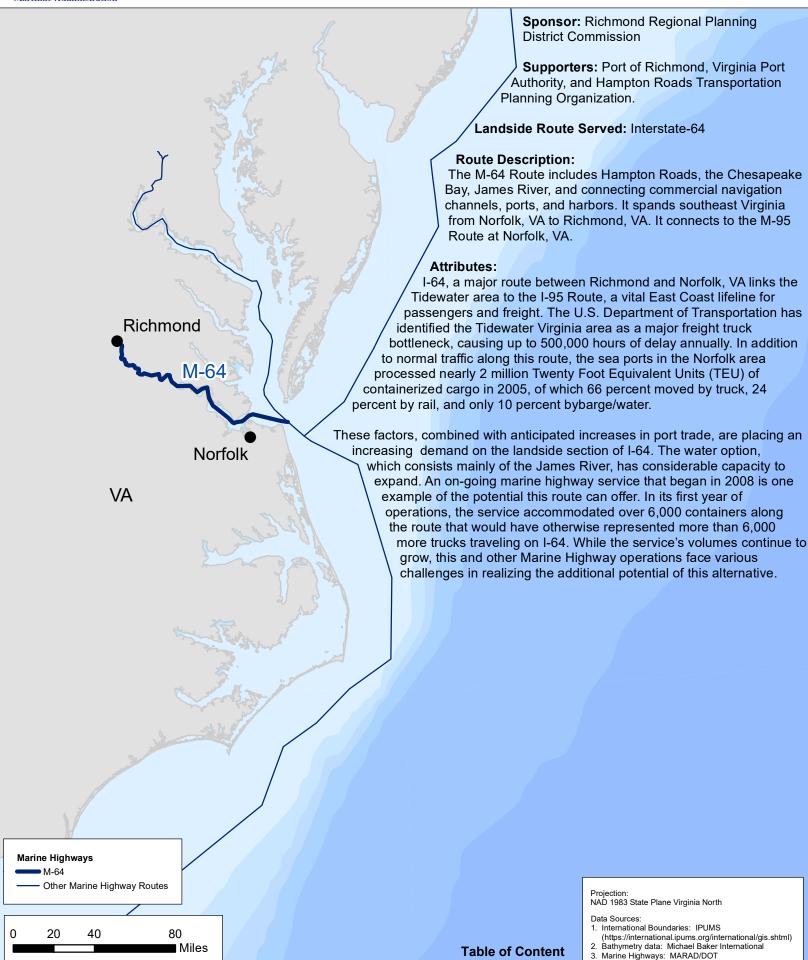
(https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International

3. Marine Highways: MARAD/DOT

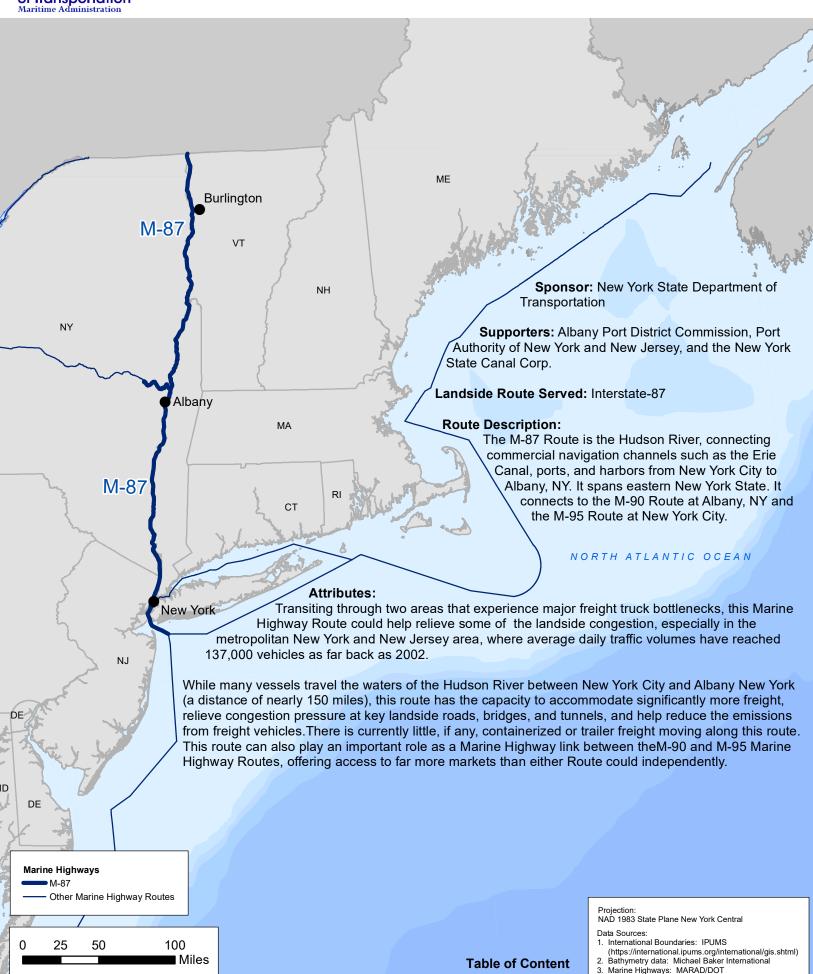




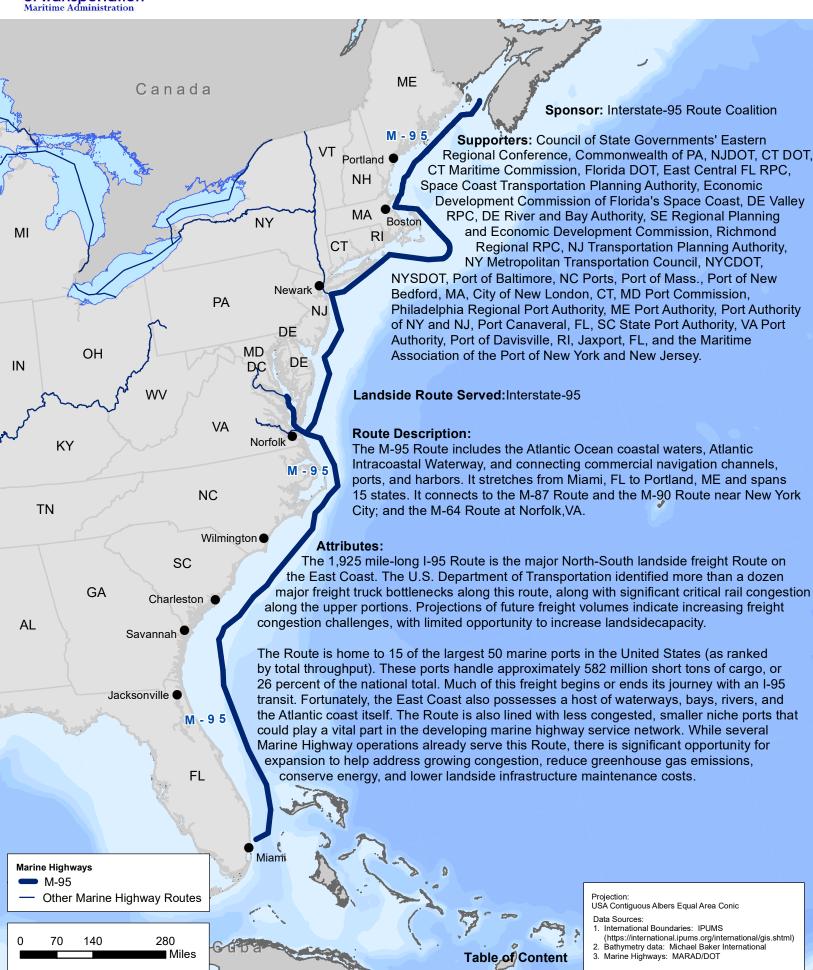
















**Sponsor:** State of Hawaii Department of Transportation

Supporters: Hawaii Harbor Users Group (HHUG)

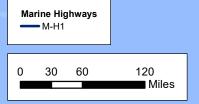
**Landside Route Served:** Hawaii State Road H1. The State is served by 4,430 miles of public roadways, including 55 miles of interstate highways, but none connect Hawaii's markets to the continent, or support surface transport between or among the islands.

#### **Route Description:**

The M-H1 Marine Highway Route includes the waterways and ocean channels used to transport goods and commodities between the Hawaiian Islands of Hawaii, Maui, Molokai, Lanai, Oahu, and Kauai. The waterways include the Alenuihaha Channel, Auau Channel, Kealakahiki Channel, Pailolo Channel, Kalohi Channel, Kaiwi Channel, Kaieiewaho Channel, and the Kaulakahi Channel.

#### Attributes:

Besides ocean surface transport, the only service available for residents to bring goods into the State or from island to island is via air. In addition to movement of cargo, the commercial harbor system also accommodates cruise vessels adding to the congestion in the harbors and competition for berth space. The harbor congestion could be mitigated through the designation and the efficiencies it would foster. This marine highway is already the primary route for the movement of cargo into and through the state, and while the designation of a marine highway route will not necessarily reduce roadway or railway congestion, it would create operational efficiencies for ocean cargo carriers and shippers, and promote short sea transportation. In addition, this route designation is an integral factor for continual growth and economic opportunities.

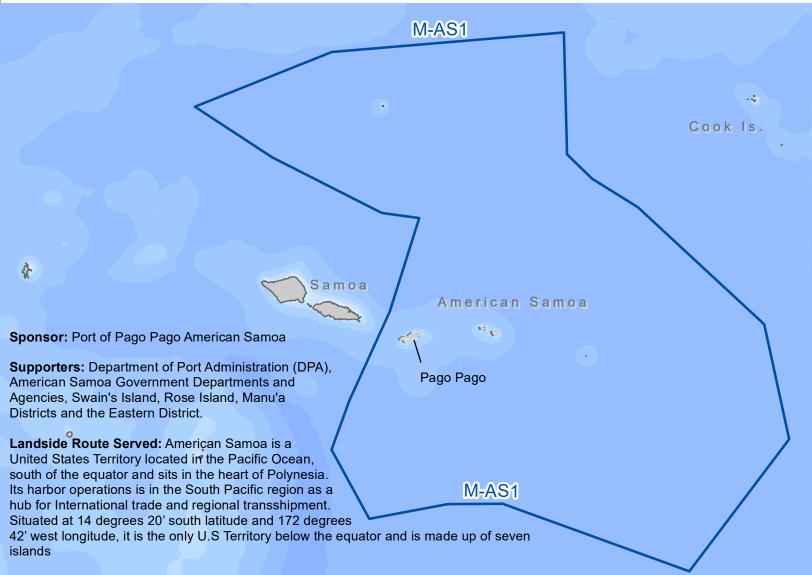


Projection: NAD 1983 State Plane Hawaii

#### Data Sources:

- International Boundaries: IPUMS
- (https://international.ipums.org/international/gis.shtml)
  2. Bathymetry data: Michael Baker International
- 3. Marine Highways: MARAD/DOT





Route Description: This Marine Highway Route includes the waterways and ocean channels between islands of the territory of American Samoa, within the Exclusive Economic Zone (EEZ). Theses Islands include" Tutuila, Aunuu, Ofu, Olosega, Ta'u, Swains and Rose Atoll

SOUTH PACIFIC OCEAN

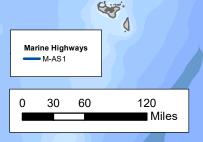


### Niue

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#### Attributes:

The marine highway system is basically the only viable transportation system to serve the residents on these islands. Air Service is very limited due to the relatively small runways. There is limited air service by small feeder aircraft consisting of 16 seaters, with small luggage only. There is no air service to Aunuu, Swains and Rose Islands. Safe take off and landing weights for aircraft limit cargo to minimal luggage and reargo —the bulk of the commodities are shipped via the bi-weekly ferry service. Pago Pago Harbor, with the most natural deep water anchorages in the world, Tutuila is the largest and most populated of the seven islands and is a strategic midpoint for several critical shipping routes between the U.S West Coast, New Zealand, and Australia. American Samoa is 5,000 miles southwest of California; 2,500 miles southwest of Hawaii, and 1,600 miles northeast of New Zealand.



Projection:

NAD 1962 State Plane American Samoa

#### Data Sources:

- International Boundaries: IPUMS
- (https://international.ipums.org/international/gis.shtml)
  2. Bathymetry data: Michael Baker International
- 3. Marine Highways: MARAD/DOT



Sponsors: Port Authority of Guam (PAG) and Commonwealth Ports Authority (CPA)

#### **Marine Highway Route:**

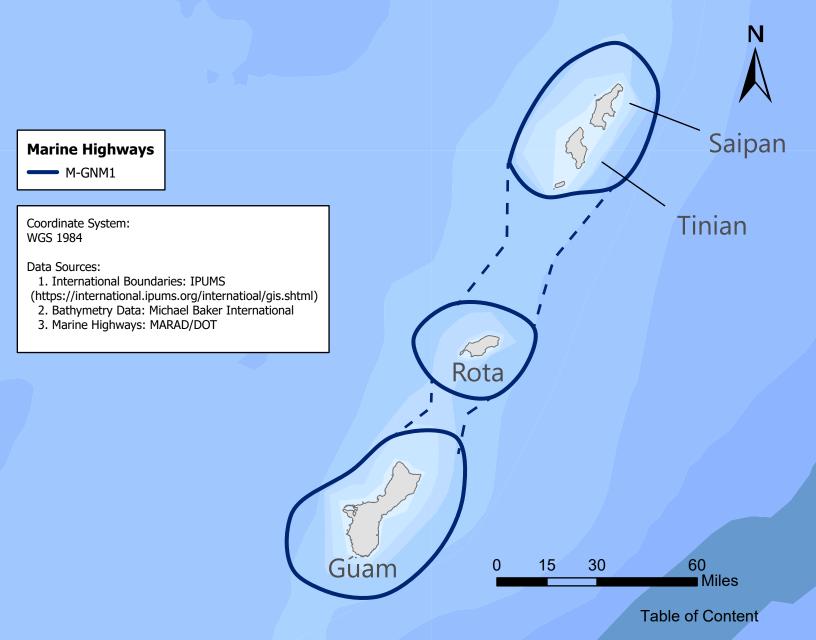
PAG and CPA applied collectively to designate the waterways currently used to transport all goods and commodities between Guam and the Commonwealth of the Northern Mariana Islands (CNMI) main islands of Rota, Tinian, and Saipan.

#### **Description:**

PAG and CPA both service marine operations of containers, break-bulk, roll-on/roll-off (RORO) vessels, fishing vessels, fuel operations, and occasionally passenger vessels/cruise ships. The Marine Highway Route Designation supports the expansion of the already existent containerized freight service to the islands.

#### **Attributes:**

The island territories are predominantly reliant on marine transportation to sustain their residents' way of life. Nearly all commodities and household and commercial goods, such as food, clothing, fuel, vehicles, construction materials, and medical supplies are transported through the islands' seaports. Shipping routes originate from U.S. ports in California, Washington, and Hawaii. Establishing the Guam-CNMI Marine Highway Route under the AMH Program will allow these territories to leverage the full range of available Federal resources to remain a viable component of America's marine transportation and strategic seaports network, as well as position them to be in the best possible situation to further enhance and economically sustain these markets in the future.





Sponsor: San Juan Port Commission

Supporters: The Ports of Ponce and marine/port facilities in Mayaguez, Ceiba (former U.S. Naval Station Roosevelt Roads), Yabucoa, Guanica, Guayama, Guayanill, and Arebico.

Landside Route Served: Route-2

#### **Route Description:**

The M-2 Route includes the Caribbean Sea and connecting commercial navigation channels, ports, and harbors around the perimeter of Puerto Rico via San Juan, Mayagüez, and Ponce.

#### Attributes:

Puerto Rico is served by just 250 miles of interstate highway and 169 miles of noninterstate facilities. By 2020 this system is expected to handle approximately 492 million vehicle-miles of travel. According to the Federal Highway Administration, almost \$1.4 billion will be required over the next 20 years to address congestion sourced problems. Adding to this is the fact that 90 percent of Puerto Rico's cargo arrives by water (approximately 14 million tons), and 18 percent of its traffic is attributable to trucks originating from the Port of San Juan alone. There is no rail system to supplement goods movement by truck; as such, water represents the only potential alternative.

This marine highway Route which circles the island and connects the vital sea ports such as Ponce (Port of Las Americas), Mayaguez, Ceiba, Yabucoa, Guanica, Guayama, Guayanilla, and Arecibo offers the potential to provide relief for the movement of people and freight, especially into and out of the island's sea ports.



CARIBBEAN SEA

Marine Highways M-2

NAD 1983 State Plane Puerto Rico Virgin Isl

Data Sources:

- International Boundaries: IPUMS
- (https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International
- Marine Highways: MARAD/DOT

25 50 100 Miles



Sponsor: Virgin Islands Port Authority (VIPA)

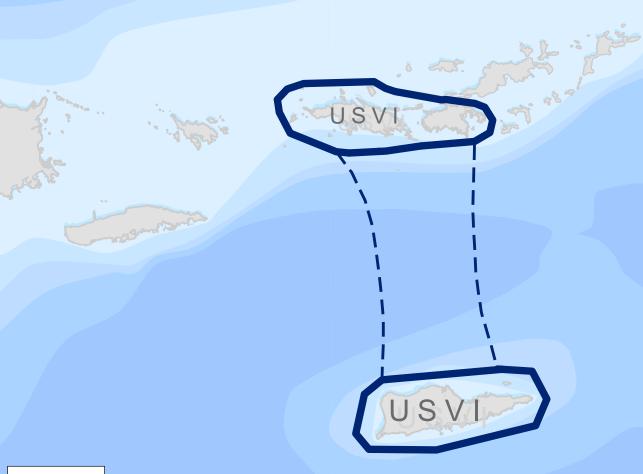
Supporters: Government of the U.S. Virgin Islands

Landside Route Served: The U.S. Virgin Islands is a United States Territory located in the Atlantic Ocean, about 40 miles east of Puerto Rico. The territory consists of three main islands: St. Thomas, St. John, and St. Croix. The main islands are served by public roadways and highways, but none connect to the U.S. mainland, or support surface transportation between or among the islands.

#### **Route Description:**

The proposed Marine Highway Route will be inclusive of all waterways and ocean channels used to transport goods, commodities, and services between the U.S. Virgin Islands. This consists of transportation to and around the major islands of St. John, St. Croix, Water Island, and all surrounding islets and cays.

Attributes: The Route Designation will have numerous positive long-term freight transportation benefits for the U.S., the U.S. Virgin Islands, and Puerto Rico. VIPA's ports play a vital role in providing critical goods and services to the residents of the U.S. Virgin Islands. In the immediate aftermath of hurricanes Irma and Maria, the cargo ports played a critical role as the primary entry point for emergency response equipment, materials, and supplies. The Route Designation will provide startegic Federal support to an already existing freight network. The U.S. Virgin Islands' economy relies almost entirely on the inbound and outbound movement of goods by sea.



Marine Highways M-V1

NAD 1983 State Plane Puerto Rico Virgin Isl

Data Sources:

- International Boundaries: IPUMS
- (https://international.ipums.org/international/gis.shtml) Bathymetry data: Michael Baker International
- Marine Highways: MARAD/DOT