

Waterborne Commerce Statistics Center

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Waterborne Commerce Statistics Center
Navigation Decision Support Center
USACE Institute for Water Resources

11 October 2012



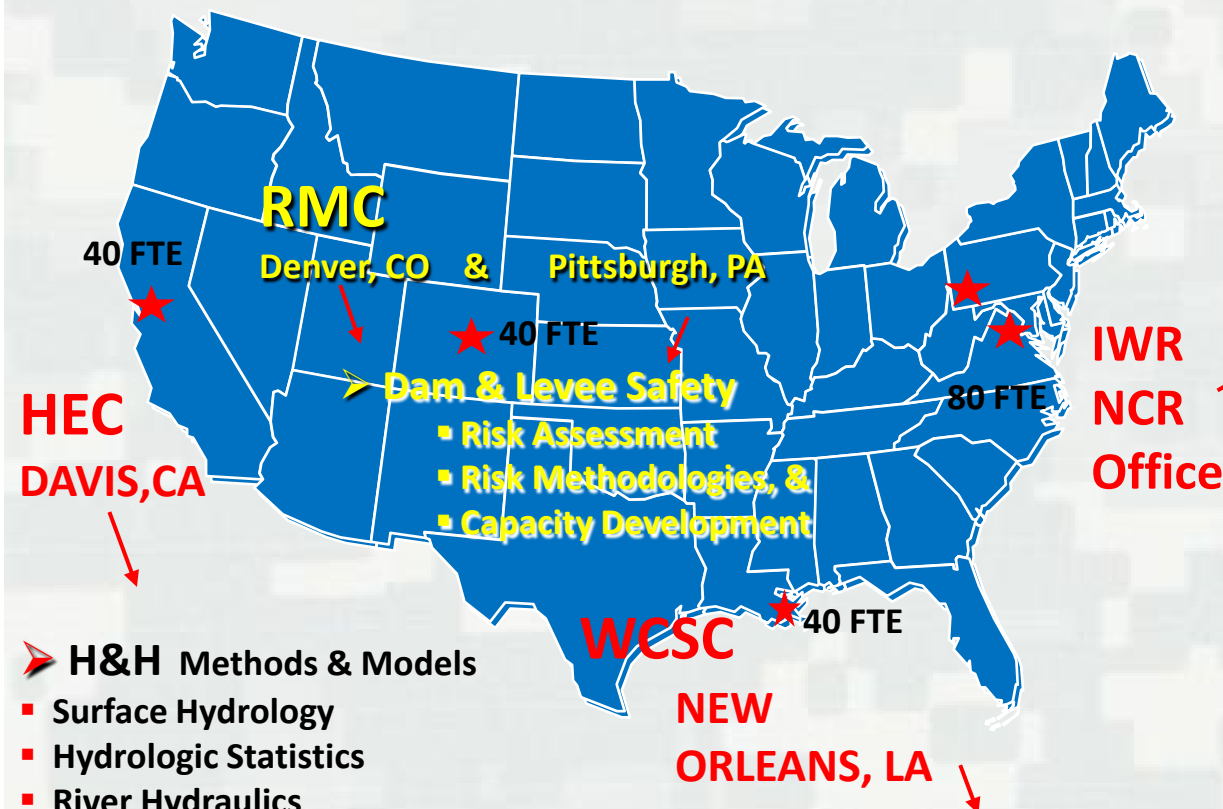
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IVWR





IWR OFFICES & MISSION SPECIALTIES



➤ Program Direction

- Water Resource Trends & Emerging Issues
- Support on CW Strategic Plan
- Policy Development Support
- National Studies

➤ Problem Solving

- Investment Decision Support
- Methods & Models
- Multi-Objective/IWRM
- Plan Formulation
- Socio-Economic Analyses
- Environmental Evaluation
- Global Climate Change
- Technical Assistance & Capacity Development

➤ Partnering

- Collaborative Planning
- Public Involvement
- Alternative Dispute Resolution
- National Interface
- International Outreach

➤ H&H Methods & Models

- Surface Hydrology
- Hydrologic Statistics
- River Hydraulics
- Ecosystem Function Models
- River Forecasting
- Reservoir Systems & Water Mgt

➤ Waterborne Commerce Statistics

- Foreign Transportation
- Domestic Commerce
- Navigation Infrastructure
- Dredging & Lock Performance
- CW Business Information



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Navigation and Civil Works Decision Support Center (NDC)



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NDC is an element within the U.S. Army Institute for Water Resources (IWR) consisting of

- Waterborne Commerce Statistics Center, including the Navigation Infrastructure Inventory, located in New Orleans, LA
- Lock Performance Monitoring System & Dredging Statistics, located in Alexandria, VA
- Civil Works Program Performance, including management of the Corps Operations & Maintenance Business Information Link (OMBIL)
- Enterprise Group S, which functions within a matrix-management construct in conjunction with the other four enterprise groups within IWR



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Lock Use, Performance, and Characteristics on the Web



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- Locks by Waterway, Tons Locked by Commodity Group, Calendar Years 1993-2012
- Locks by Waterway, Lock Usage, Calendar Years 1993-2012
- Lock by Waterway, Locks Unavailability, Calendar Years 1993-2012
- Key Lock Reports provide a monthly summary and year-to-date totals of commodity tonnages and barge traffic for key locks on the inland waterways.
- Summary of Lock Statistics provide year-to-date summaries and previous year comparisons of vessel traffic, commodity tonnage, tows and barges, delay times, and other statistics for each lock chamber.
- General Characteristics of Locks provides the physical characteristics of all Corps owned and/or operated locks.



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Dredging Data on the Web



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- Advertising Schedule - a report in spreadsheet format for the current fiscal year that includes selected information and the status of all Corps dredging contracts anticipated to be advertised in the designated fiscal year.
- Dredging Contracts Awarded - reports for the current and previous fiscal years includes selected information on all Corps advertised and awarded dredging contracts in the designated fiscal year.
- Number of Contracts and Quantity Dredged – by Corps District, by Dredge Type, and by Material Disposal.



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Dredging Information System



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- Location of dredging and disposal
- Dredge type and quantity dredged
- Type and name of dredge(s) used
- Dates: advertisement, bid open, estimated start and end of dredging, contract award
- Government estimate, winning bid and bidder



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WCSC Mission



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- To collect and supply navigation data and information for U.S. channels, ports, waterways, and Corps Projects.
- Foreign and Domestic
- Commodity and Vessel Movements



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Waterborne Commerce and Vessel Statistics



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- **The River & Harbors Act of 1922 (amended and codified in 33 U.S.C. 555) authorizes the USACE to collect, process, distribute and archive waterborne commercial vessel trip and cargo data.**
 - analyze the feasibility of new water transportation projects and activities
 - set priorities for new investment and rehabilitation
 - management of the operations and maintenance of existing projects.
- **Under Federal law, vessel-operating companies must report domestic waterborne commercial vessel movements directly to the USACE.**
- **U.S. Customs and Border Protection, U.S. Census Bureau and the Port Import Export Reporting Service provide U.S. foreign waterborne cargo and vessel movement data.**
- **Movement data acquired by the Center is primarily for the use of the Corps and other government agencies; however, summary statistics, which do not disclose movements of individual companies, are also released to private companies and to the general public.**



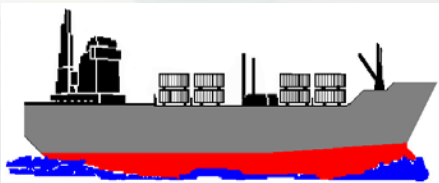
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WCSC Data Flow



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Collection



Partnership with :

- Carriers
- Customs
- Port & Terminal Operators
- Canada
- Corps Operations
- Corps Regulatory
- NDC Staff

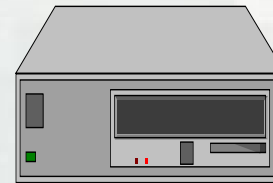
Input



Supported by :

- Contractors
- Corps Offices
- NDC Staff
- Customs/PIERS

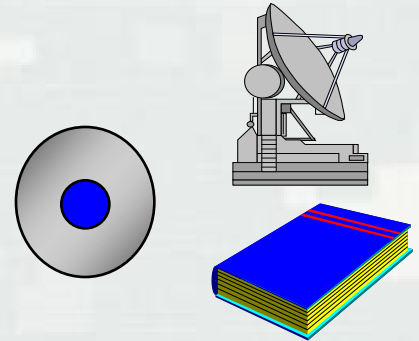
Data Processing



Internal Activities:

- Editing
- Enforcement
- Routing
- Information Generation
- Decision Support
- Publishing

Distribution



- Fact Card
- WCUS
- WTLUS
- Lock Info
- Port Facilities
- Dredging Stats
- Other CW Business Line Products



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VESSEL MOVES TO REPORT



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- Dry cargo ships and tankers
- Barges (loaded and empty)
- Towboats (except harbor assistance and barge shifting)
- Crew boats and supply boats
- First move of newly constructed vessels
(no recreation, commercial fishing, fire,
police, patrol, military vessels, nor
vessels used in construction activities)



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Data Collected from Vessel Operating Companies



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Vessel - Vessel Type - Commodity - Tonnage
Alternate Routes - Vessel Operator

Origin:

Port

Dock

Date Departed /
Loaded

Draft

Destination:

Port

Dock

Date Arrived /
Offloaded

Draft



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Domestic Waterborne Container Data



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- Collection began with calendar year 2002 data
- Size
- Empty or Not Empty
- Loaded at Facility
- Unloaded at Facility



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Shipper Information for HMF



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For cargo moves to or from HMF ports:

- Shipper name
- Shipper Tax Identification Number
- Exemption code

Provided to Customs for audit purposes.

2008 GAO Report

(.125% of cargo value)



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FY11 HM Trust Fund Facts



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- FY11 balance in fund = \$6.43 billion
- Fees collected in FY11 = \$1.18 billion
 - Imports: \$1.06 billion (90%)
 - Domestic: \$0.12 billion (10%)

Funds appropriated by Congress: \$827 million:

- To the Corps: \$791 million
- To Customs: \$36 million

Only 70% of fees collected were appropriated



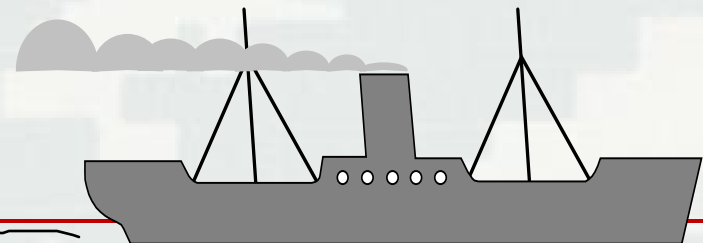
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Routing



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- The computer can automatically create a route if the necessary alternates are there



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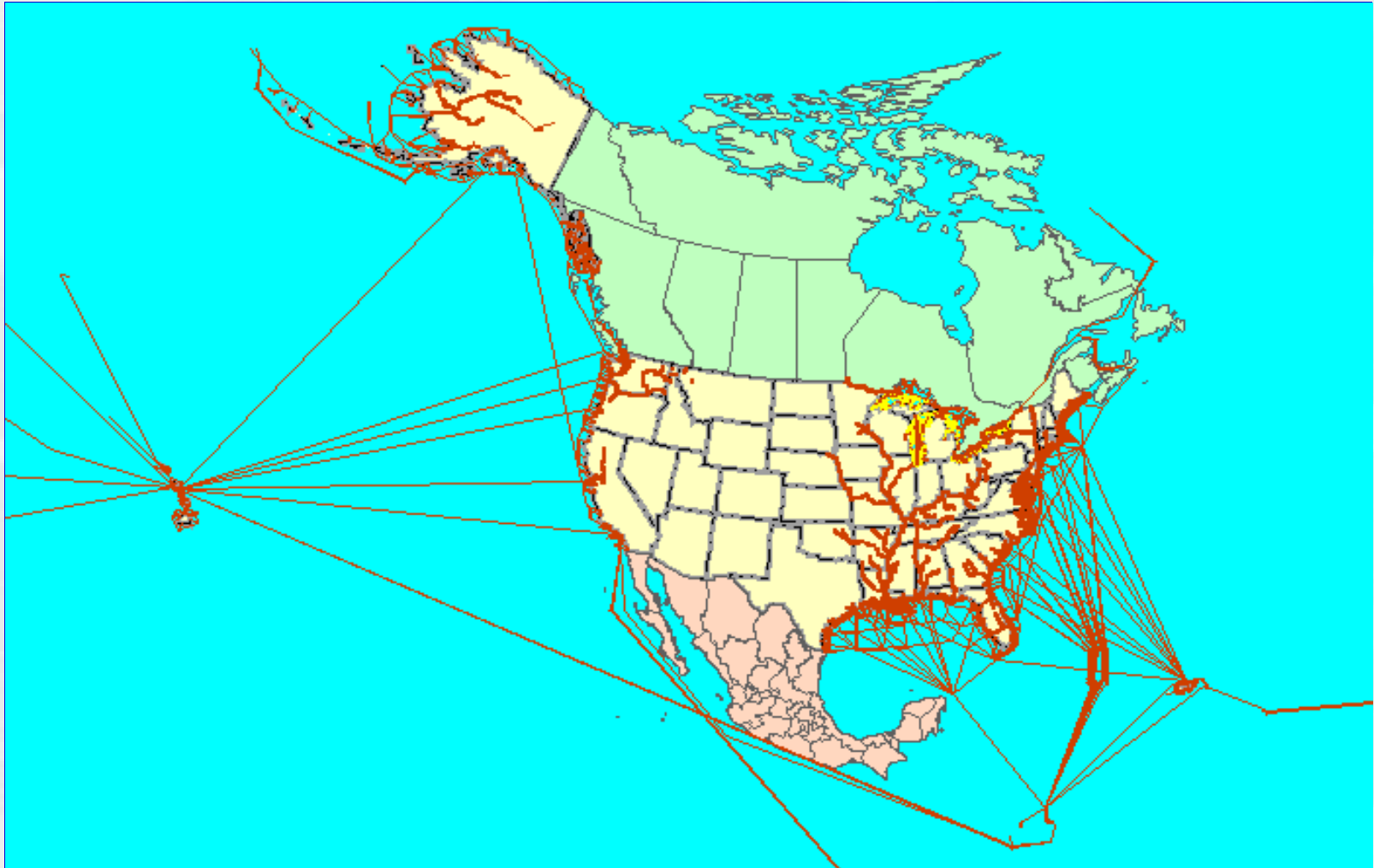


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Routing



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WCSC DETAIL Record



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- Vessel Operating Company ID
- Vessel ID and Type
- Origin
- Destination
- Draft
- Commodity
- Traffic
- Tons
- Trips
- Links Traversed
- Miles From Origin to Destination



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WCSC GEOGRAPHIC AGGREGATION



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- National
- Waterway
- State
- County
- Port
- Congressional District
- Corps Project
- Past a point
- On a reach

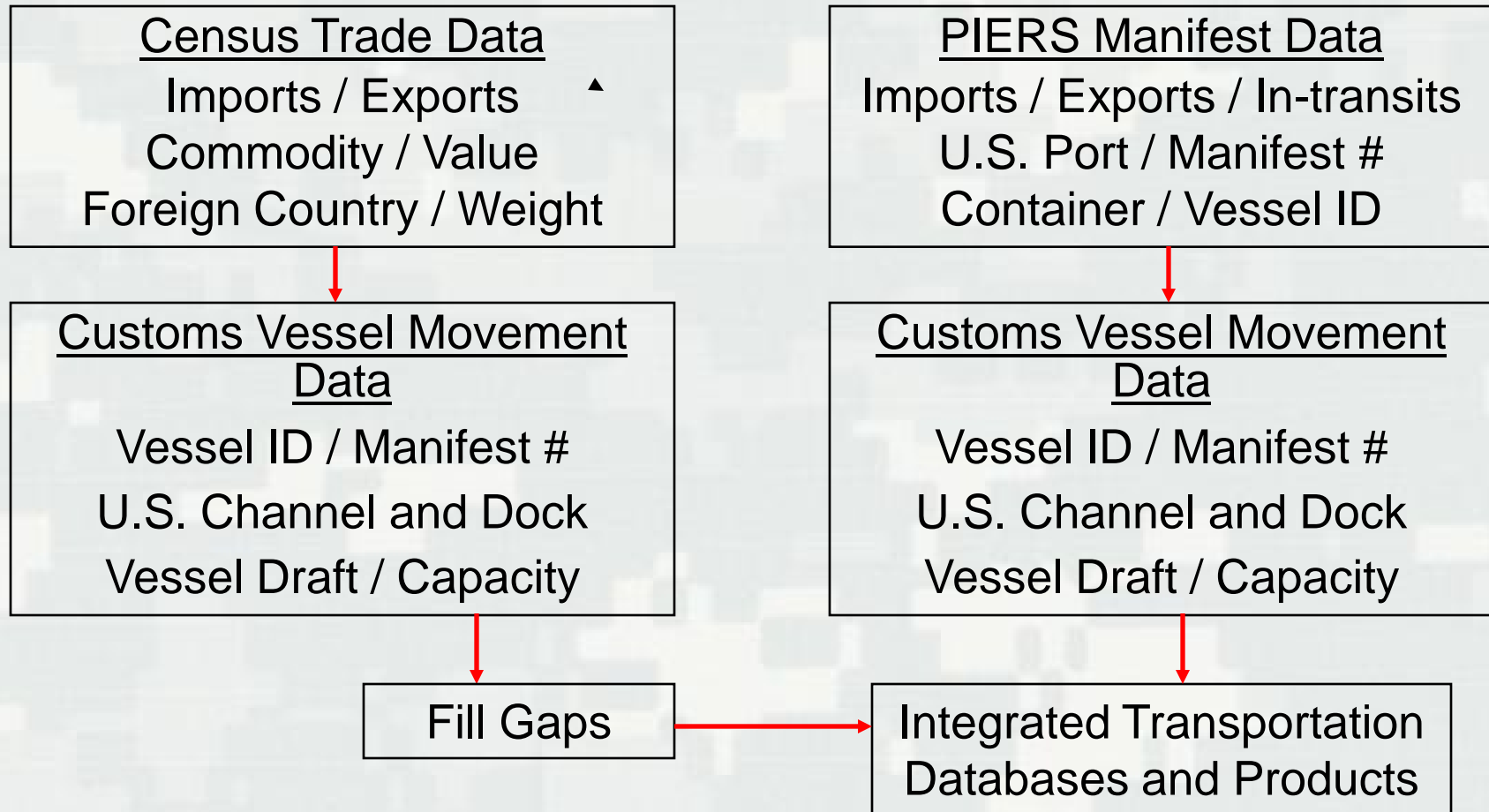


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Current U.S. Foreign Waterborne Transportation Processing



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FOREIGN VESSEL DATA ELEMENTS



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- Vessel Name
- Vessel ID (IMO number)
- Date
- Flag
- Operator
- Draft
- Dock
- Previous Port
- Next Port



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Key Foreign Data Elements



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- Foreign port of lading/unlading
- U.S. dock of lading/unlading
- Commodity
- Weight
- Vessel
- Vessel draft
- Date in U.S. port



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Waterborne In-Transit Cargo Movements



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- Definition: Cargo moving in-bond through the U.S. from one foreign country to another foreign country via a U.S. coastal port.
- Source: Port Import Export Reporting Service



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Navigation Infrastructure Inventory



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- Inventory of over 200 commercial ports, 9,000+ waterway facilities, Corps locks and Nav Project Profiles
- Outputs: waterway facility characteristics related to our customers
- Supports Quality Assurance of waterborne commerce data, Permits, Budget and Homeland Security

Read Mode

Master Docks Plus

General Details Descriptions Dock Administration

GUID: 30003 Official Name: International Matex Tank Terminals -
 Parent or Child: Child Data Status: Validated for Public
 Location Code: 2825 Dock Code: 564 Base34 GUID: 0RYF
 Facility Type: Dock UN Loc Code: BAY UN Loc GUID: BAY0RYF
 Port: Port Code: 398 Name: CONSOLIDATED STATEMENT...
 WTWY: Port Code: 388 Name: NEW YORK AND NEW JERSEY ...

Handles Containers: ☐ Ferry Terminal ☐ Yes ☐ No ☐ Unknown
 Throughput: /year

Cargo: ☐ Yes ☐ No ☐ Unknown
☐ Domestic ☐ Foreign ☐ Both ☐ Unknown
 Hazardous: ☐ Yes ☐ No ☐ Unknown

LPMS Code	Commodity	Amount	Units	Period
20	Petroleum and Petroleum Products			

Add Delete

District EROC: E3 Code: 3 Name: New York
 State Postal Code: NJ FIPS: 34 Name: New Jersey
 County FIPS Code: 17 Name: Hudson

Congressional District FIPS: 13 Congress: 110
 Public Domain Region Code: 14 Name: Middle Atlantic Coast
 BEA Economic Area Code: 118 Name: New York-Newark Bridgeport, N...
 CBSA Code: 35620 Name: New York-Newark-Edison, NY-N...
 HUC: 02030104

Vessel Calls: Timeframe:

IRS TCN	Vessel Type	Description
T22NJ1503		

Add Delete

Map Dock Picture Neither Locate Pan Identify Measure

Latitude: 40.650276 Longitude: -74.110296 GoTo Lat/Long
 Latitude Degrees: 40 Minutes: 39 Seconds: 0.9936
 Longitude Degrees: -74 Minutes: -6 Seconds: -37.0656 GoTo Lat/Long
☐ Actual ☐ General ☐ Unknown
 Horizontal Datum: NAD83 Verification: Verified Field Update
 TOWS Link Num: 4136 Select
 GIS Waterway Link Num: 413600 GIS Waterway Type: 1
 Mile: Mile Decimal: Milept_ID: Select
 River Datum: TOWS Mile: Select
 River Name: K301 Van Kull Bank: North
 River Code: Lock Code: Name:

CWIS Code	CWIS	LI Code	Local Indicator
76329	NEW YORK AND NEW JERSEY ...	S2324	NEW YORK AND NEW JERSEY ...
12520	NY-NJ CHANNELS (ARTHUR ...	S0289	NY-NJ CHANNELS (ARTHUR ...
12490	NEW YORK HARBOR	S0287	NEW YORK HARBOR

Add Delete

Previous Dock 1 of 1 Next



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Waterborne Transportation Lines of the United States (WTLUS)



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- Provides both an inventory of vessel companies and their American flag vessels operating in the transportation of freight and passengers and a national summary of all vessels.
- An alphabetical listing of each vessel company name, address and telephone number is included as are characteristics of each vessel listed by vessel operator name.
- Volume 1 – National Summaries
- Volume 2 – Vessel Company Summary
- Volume 3 – Vessel Characteristics
- Available in both pdf and excel formats



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OMBIL Plus



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Operations and Management Business Information Link

- Aligns Civil Works business line data with the business areas of navigation, hydropower, recreation, flood risk management, environmental stewardship and compliance, ecosystem restoration, regulatory, safety and water supply
- OMBIL Plus data warehouse merges
 - Expenditures, Activities & Reviews
 - Inventories & Characteristics (locks, dams, rec. sites, docks, etc.)
 - Outputs/Utilization (tons, trips, ton-miles, megawatts, cubic yards, etc.)
 - Performance (vessel delay time, availability, campsite visits, etc.)
- Performance Measures of efficiency and effectiveness
- Decision Support – Budget Priorities, Operations, R&D, Planning & Investments



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Federal - Industry Logistics Standardization (FILS)



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Joint collaboration between Industry & Governmental Agencies to adopt a uniform nomenclature for US Navigational Points of Interest in order to improve accuracy and efficiency when sharing common information.

Guiding principles

Standard **Location** Codes for Dock Facilities

Standard River Names and Mile Points

Standard **Vessel** Codes

Standard **Commodity** Codes

Accepted by Industry

Accepted by Federal Agencies

Usable in multiple transmission formats

Adhere to international standards





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WEB SITES



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- www.ndc.iwr.usace.army.mil
- www.ndc.iwr.usace.army.mil/navunitsearch/NavUnitSearch.aspx

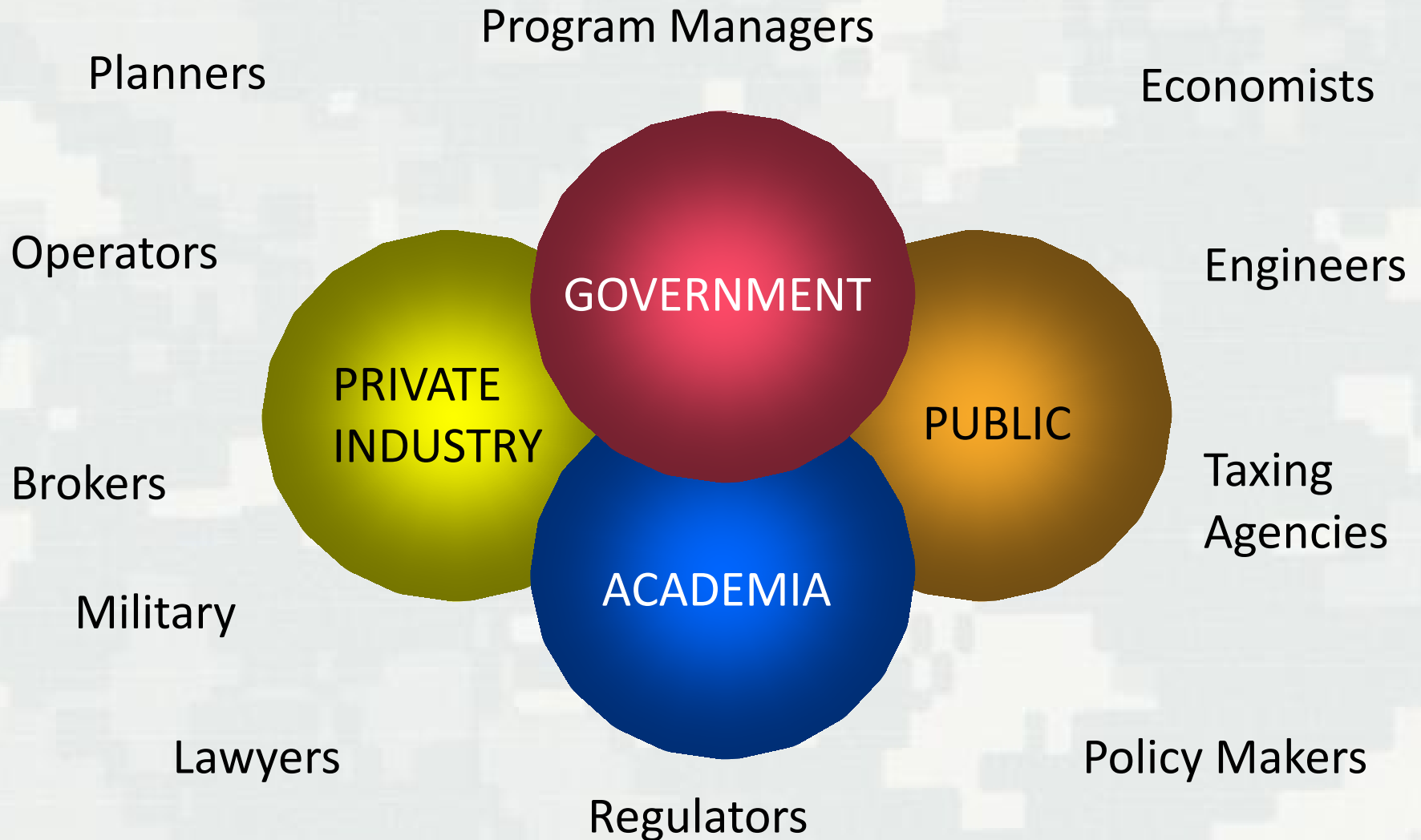


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NDC Customers



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Products



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Data Confidentiality



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- **Protection of Trade Secrets**
 - **Title 18, U. S. Code, Chapter 93, Section 1905**

“Whoever ... discloses ... information which concerns ... operations ... (or) confidential statistical data ... of any person, firm, corporation or association ... shall be fined not more than \$1,000 or imprisoned not more than one year or both, and shall be removed from office of employment.”



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Availability of Detailed Dock to Dock Statistics



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33 CFR 209.320

§ 209.320 Policy on release of commercial statistics.

The collection of commercial statistics pertaining to rivers, harbors, and waterways, and annual reports thereof to Congress, are required by the River and Harbor Act of June 23, 1866 (14 Stat. 70), the act of February 21, 1891 (26 Stat. 766), the River and Harbor Act of June 13, 1902 (32 Stat. 376), the River and Harbor Act of July 25, 1912 (37 Stat. 201), the River and Harbor Act of September 22, 1922 (42 Stat. 1043), and Pub. L. No. 16, February 10, 1932 (47 Stat. 42). **It is the policy of the Department to hold in strict confidence any data or information which has been furnished by shippers and others upon the understanding that it will not be disclosed and will only be used in the compilation of port or waterway statistics.** In case Federal or State agencies or local interests request other than general information made permissible hereunder, their attention will be called to the policy indicated in this section.



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Web Outputs



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- Waterborne Commerce of the United States (WCUS)
- Waterborne Transportation Lines of the United States (WTLUS)
- Public Domain Database
- Principle Ports
- Waterway Network and Waterway Network Link
Commodity Data



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Waterborne Commerce of the United States (WCUS)



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- A series of publications which provide statistics on the foreign and domestic waterborne commerce moved on the United States waters
- Parts 1-4 cover specific geographical areas
 - Part 1 Atlantic Coast
 - Part 2 Mississippi Valley Gulf Coast
 - Part 3 Great Lakes
 - Part 4 Pacific Coast, Alaska
- Part 5 covers National Summaries



Parts 1-4

- WCUS, Parts 1-4 present detailed data on the movements of vessels and commodities at the ports and harbors and on the waterways and canals of the United States, the Commonwealth of Puerto Rico, and the Virgin Islands.

http://www.ndc.iwr.usace.army.mil/wcas/pdf/wcusmvgc09.pdf - Windows Internet Explorer

Section Included: From mouth of Black River to Camden, AR (336 miles). Maintained Depth: Minimum depth 9 feet to Camden, AR during low water season. Commensurably greater depth available at higher river stages.

Comparative Statement of Traffic (thousand short tons)

Year	Total	Year	Total	Year	Total	Year	Total
2000	1,476	2003	2,197	2006	2,029	2009	1,283
2001	1,575	2004	1,808	2007	1,834		
2002	1,383	2005	1,688	2008	1,755		

Freight Traffic, 2009 (thousand short tons)

Commodity	Grand Total	Internal		
		Inbound	Outbound	Through
Total, all commodities	1,283	824	192	268
Total petroleum and petroleum products	717	408	42	268
Subtotal crude petroleum	212	212	---	---
2100 crude petroleum	212	212	---	---
Subtotal petroleum products	505	195	42	268
2211 gasoline	274	146	---	128
2330 distillate fuel oil	190	49	2	139
2340 residual fuel oil	41	1	40	---
Total chemicals and related products	171	167	4	---
Subtotal fertilizers	7	7	---	---
3110 nitrogenous fert.	7	7	---	---
Subtotal other chemicals and related products	163	159	4	---
3220 alcohols	1	1	---	---
3273 ammonia	53	53	---	---
3274 sodium hydroxide	106	106	---	---
3276 metallic salts	4	---	4	---
Total crude materials, inedible except fuels	240	239	1	---
Subtotal soil, sand, gravel, rock and stone	240	239	1	---
4322 limestone	176	176	---	---
4331 sand & gravel	18	18	---	---
4335 waterway improv. mat.	46	45	1	---
Total primary manufactured goods	11	11	---	---
Subtotal lime, cement and glass	11	11	---	---
5210 lime	11	11	---	---

Done

Unknown Zone | Protected Mode: Off



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Public Domain Database



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- Only vessel database with origin and destination information available to the public.
- The Public Domain data files contain state to state and region to region tonnages for 14 major commodity groups by origin and destination.
- Available in pdf and excel format.



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Principle Ports



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- The Principal Port file contains USACE port codes, geographic locations (longitude, latitude), names, and commodity tonnage summaries (total tons, domestic, foreign, imports and exports) for Principal USACE Ports.
- The ports are politically defined by port limits or Corps projects, excluding non-Corps projects not authorized for publication.
- Available in database format and excel.



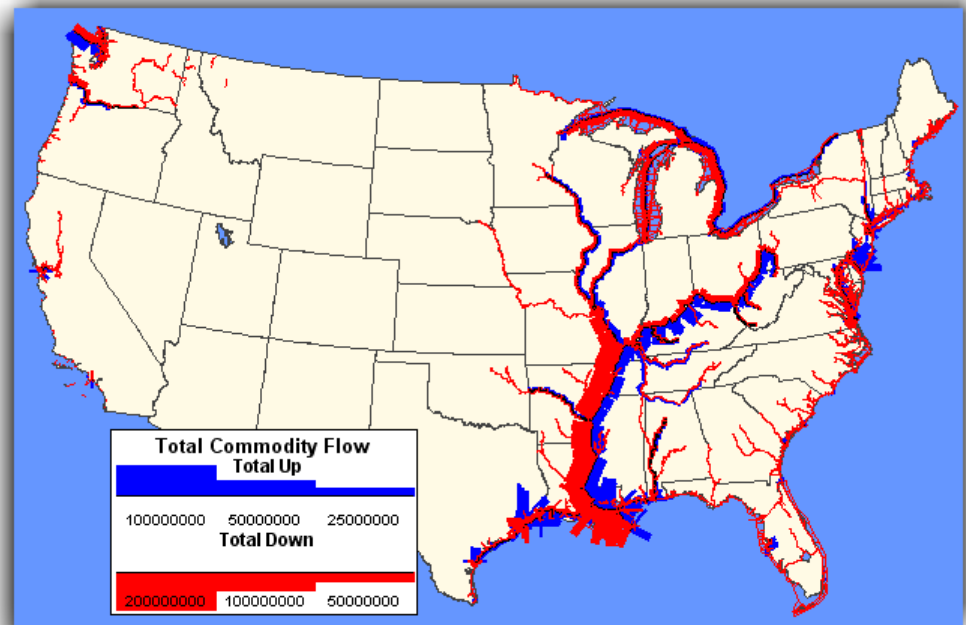
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Waterway Network and Link Commodity Data



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- The National Waterway Network (NWN) is a geographic database of navigable waterways in and around the United States, for analytical studies of waterway performance, for compiling commodity flow statistics, and for mapping purposes.
- Links represent either actual shipping lanes (i.e., channels, waterways, sealanes, rivers) or serve as representative paths in open water (where no defined shipping paths exist). Tonnage is summarized for each link by commodity and direction (up bound and down bound)





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Questions



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