

Waterborne Commerce Statistics Center

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Waterborne Commerce Statistics Center

Navigation and Civil Works Decision
Support Center

Institute for Water Resources



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US Army Corps of Engineers
BUILDING STRONG



WCSC Mission

- ▶ To collect, process, distribute, and archive vessel trip and cargo data. These statistics are used to analyze the feasibility of new projects and to set priorities for new investment, and for the operation, rehabilitation and maintenance of existing projects.



Waterborne Commerce and Vessel Statistics

- **Rivers & 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.**
 - ▶ **new water transportation projects and activities**
 - ▶ **set priorities for new investment and rehabilitation**
 - ▶ **management of existing projects.**

- **Under Federal law, vessel-operating companies must report domestic waterborne commercial vessel movements directly to the USACE.**

- **On September 28, 1998 the Office of Management and Budget (OMB) designated the U.S. Army Corps of Engineers as the central collection agency for the Foreign Waterborne Transportation Statistics Program.**

- **Movement data acquired 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.**



DOMESTIC Vessel Moves To Report

- **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**

NOTE: Do NOT collect recreation, commercial fishing, fire, police, patrol, military vessels, nor vessels used in construction activities



DOMESTIC

Data Collected from Vessel Operating Companies

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

Origin:

Port/Waterway
Dock Shipping
Date Shipping
Draft Shipping

Destination:

Port/Waterway
Dock Receiving
Date Receiving
Draft Receiving



Waterborne Commerce Statistics

Value We Add to Foreign Trade Dataset

- **Vessel entrances and clearances for all U.S. Customs Ports**
 - ▶ Standardized U.S. dock facilities database to U.S. Customs
 - ▶ Customs analyst selects a dock “pick-list“
 - ▶ Research new dock facilities
 - ▶ Assign tonnage down to the dock level
 - ▶ Validate vessel entrance and clearance dates
 - ▶ Validate vessel ICST (International Classification of Ships) codes
 - ▶ Cross-validate vessel draft with port (or waterway) draft
- **Integrate Port Import Export Reporting Service and U.S. Census Bureau datasets into one dataset**
 - ▶ Validate commodity codes for all cargo records
 - ▶ Correct significant weight (kilos) errors by examining vessel tonnage capacities
 - ▶ Perform cross-validation of PIERS and Census trade datasets down to the foreign vessel level
 - ▶ Validate TEUs (Twenty-foot Equivalent Units) for containerized cargo records
 - ▶ Combine validated trade data into a single complementary trade dataset
- **Foreign transportation dataset is “matched” to the integrated foreign trade dataset**
 - ▶ Criteria include U.S. Customs district and port codes, vessel entrance/clearance dates, vessel manifest numbers, vessel names and IMO (International Maritime Organization) numbers
 - ▶ “match rate” is over 95%



Foreign Vessel Movement Data

- Foreign entrances and clearances furnished to the Corps by U.S. Customs and Border Protection
- Date of entry/clearance
- US Custom's Port
- Dock
- Last/previous Port of call
- Vessel IMO and characteristics
- Vessel draft

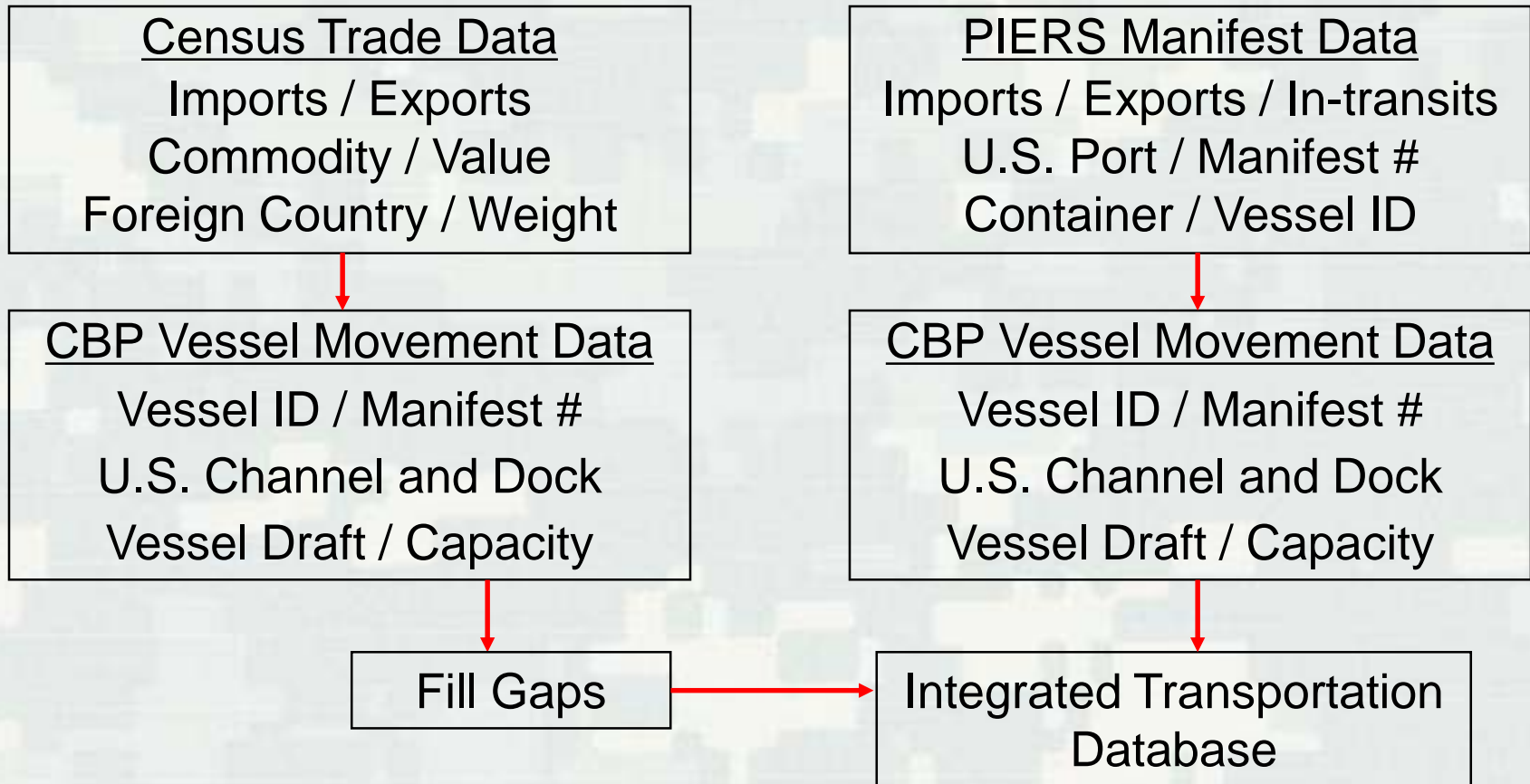


Foreign Commodity Data

- PIERS (Port Import Export Reporting Service) – Primary Source
 - ▶ Manifest based data set including import, export, in-transits, container, commodity, vessel id, and U.S. Port information
- Census Data – Supplemented and used for quality control/assurance.
 - ▶ Trade based data set including imports, exports, commodity, value, vessel name and U.S. Port information



Current U.S. Foreign Waterborne Transportation Processing



Integrated Foreign

- Entrances and Clearances dock level information is matched to both the Census and PIERS foreign cargo files to put foreign commerce at the correct docks.
- Vastly improves geographic specificity with dock level information, able to aggregate tonnages to various geographical categories.
- Unique final dataset. Only comprehensive foreign dataset that contains: vessel, commodity, and TEU data at the dock level allowing aggregations to Corps projects, port, waterway, state, and national levels.



Navigation Infrastructure Inventory

- 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

Master Docks Plus

US Army Corps of Engineers

General | Details | Administration | Dock Administration

GUID: 2003 Official Name: International Matex Tank Terminals
 Parent or Child: Child Data Status: Validated for Public
 Location Code: 2025 Dock Code: 544 Base34 GUID: 0RYF
 Facility Type: Dock UnLoc Code: BAY UNLocGUID: BAYBYT
 Part: Part Code: 300 Name: CONSOLIDATED STATIONERY...
 WTWY: Part Code: 300 Name: NEW YORK AND NEW JERSEY...

Handles Containers: Ferry Terminal Cargo: Yes No Unknown
 Yes No Unknown Domestic Foreign Both Unknown
 Throughput: Year Hazardous: Yes No Unknown

LPMS Code	Commodity	Amount	Units	Period
20	Petroleum and Petroleum Products			

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

Congressional District: FIPS: 17 Congress: 110
 Public Domain Region: Code: 14 Name: Middle Atlantic Coast
 BEA Economic Area: Code: 110 Name: New York-Newark Bridgeport, N.
 CBSA: Code: 35620 Name: New York-Newark Edison, NY-N.
 HUC: 02030104

Vessel Calls	Vessel Type	Description
IRS TCN 122NJ1503		

Latitude: 40.650276 Longitude: -74.110296
 Latitude Degrees: 40 Minutes: 39 Seconds: 0.9916
 Longitude Degrees: -74 Minutes: 6 Seconds: -37.8656
 Actual General Unknown
 Horizontal Datum: NAD83 Verifications: Verified
 TOWS Link Num: 4136
 GIS Waterway Link Num: 413609 GIS Waterway Type: 1
 Mile: Mile Decimal: Mktpld_ID:
 River Datum: TOWS Mile:
 River Code: Lock Bank: North
 CWS Code CWIS LI Code Local Indicator
 76309 NEW YORK AND NEW JER 52334 NEW YORK AND NEW JER
 12500 NY-NJ CHANNELS (ARTH 50289 NY-NJ CHANNELS (ARTH
 12490 NEW YORK HARBOR 50287 NEW YORK HARBOR

0 0.5 miles

Map Dock Picture Neither Pan Home Measure

Latitude: 40.650276 Longitude: -74.110296
 Latitude Degrees: 40 Minutes: 39 Seconds: 0.9916
 Longitude Degrees: -74 Minutes: 6 Seconds: -37.8656
 Actual General Unknown
 Horizontal Datum: NAD83 Verifications: Verified
 TOWS Link Num: 4136
 GIS Waterway Link Num: 413609 GIS Waterway Type: 1
 Mile: Mile Decimal: Mktpld_ID:
 River Datum: TOWS Mile:
 River Code: Lock Bank: North
 CWS Code CWIS LI Code Local Indicator
 76309 NEW YORK AND NEW JER 52334 NEW YORK AND NEW JER
 12500 NY-NJ CHANNELS (ARTH 50289 NY-NJ CHANNELS (ARTH
 12490 NEW YORK HARBOR 50287 NEW YORK HARBOR

Dock 1 of 1

Master Docks Plus

- History
 - ▶ Port Facilities Group – performed on-site dock surveys and produced a Port Facilities publication (Blue Book)
 - ▶ Waterborne Commerce Statistics Center collected data on commercial vessel moves and maintained a list of docks known as the Master Docks file that were used as the origin/destination of the vessel moves



Navigation Infrastructure Inventory Characteristics

- Contains elements of both Port Series (Blue Books) and historic WCSC dock file

Facility Type

Address

Operator/Owner

Lat/Long

Waterway

Port

Mile on Waterway

Bank on Waterway

Commodities

Highway/Railroad Connections

Berthing Totals

Construction Information

Mechanical Handling Equipment

Depth at Dock



WCSC Geographic Aggregation

- National
- Waterway
- State
- County
- “Corps” Port – Legislatively Defined
- Congressional District
- Custom District Port
- Corps Project
- Past a point
- On a reach
- Dock



How Tons Are Credited

- Waterway
 - ▶ Tonnages shipped, received, or “thru” waterway
- Port
 - ▶ Tonnages shipped or received only
- Corps Project
 - ▶ Tonnages shipped, received or “thru” project



Corps Port

- **Legislatively defined**

- ▶ Port limits defined by legislative enactments of state, county, or city governments.
- ▶ The corporate limits of a municipality.
- ▶ Historic definitions based on Corps' projects.



Custom Ports

- Generally describe trade areas, not specific ports
- Not legislatively defined
- Do not generally match legislatively defined ports
- Often contain groups of ports



Availability of Detailed Dock to Dock Statistics

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.



Web Outputs

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



Principal Ports

- 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.
- Can be provided with published commodities by special request.
- 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.



Questions?

