Aiding Navigation through Centralizing Information Dissemination

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US Army Corps of Engineers
Institute for Water Resources
WEDA Pacific Chapter
October 25, 2018
Outline

- National Perspective
- Civil Works Business Intelligence
- Dredging Information System
- Notice to Navigation Interests
We aspire to remain a WORLD-CLASS organization, now and into the future, by setting the professional standard and stepping-up as a reliable Federal option. Perhaps the MOST STRATEGIC thing we can do is to simply DELIVER OUR PROGRAM...with exceptional quality, on time, and on budget.
Provide safe, reliable, efficient, effective and environmentally sustainable waterborne transportation systems for movement of national security needs, commerce, and recreation.
Civil Works Business Intelligence (CWBI)

Environmental
- USACE Sustainability Data Reporting Tool (CRAFT)

Enterprise Geospatial Management
- CorpsMap

Emergency Management
- Icejam Database
- USACE Operations Center (UOC) CorpsMap
- FreeBoard

Flood Risk Management
- National Levee Database (NLD)
- Levee Inspection System (LIS)
- Levee Screening Tool (LST)
- National Inventory of Dams (NID)
- National Structures Inventory
- Flood Damage Reduction Performance Measure Program (FDRPMP)
- Life Safety Hazard Index

Water Management
- Corps Water Management System (CWMS) Web Dissemination

Infrastructure (not FRM)
- Corps of Engineers Bridge Inventory System (CEBIS)
- Real Estate Management Information System (REMIS) Geospatial

Recreation
- Recreation Budget Evaluation Tool

Project Location Management
- Corps Project Notebook (CPN)
- Comprehensive Evaluation of Project Datums (CEPD)
- USACE Survey Monument Archival & Retrieval Tool (U-SMART)

Response to Climate Change
- Comprehensive Evaluation of Projects with Respect to Sea-Level Change (CESL)
- Vulnerability Assessment
- Reservoir Sedimentation Indicator (RSI)
- Extreme Storm Database
- RCC Hydro Implementation
- BioSequestration

Budget Management
- Water Infrastructure Systems Data Manager (WISDM)

Operations and Maintenance Business Information Link (OMBIL)
- Regulatory Module (ORM)
- Regulatory In-Lieu Fee and Bank Tracking System (RIBITS)
- National Wetlands Plant List (NWPL)
- Compliance Processes and Tracking Tool (CPTrack)

Navigation Data Management
- Lock Performance Monitoring System (LPMS)
- The Oracle Waterborne System (TOWS)
- Master Docks Plus
- Dredging Information System (DIS)
- National Channel Framework
- Navigation Data Integration Framework Portal
- eHydro
- Regional Sediment Management Viewer
- Dredging Quality Management (DQM)
CWBI

What is it?
- An effort to integrate existing data sets and systems to provide a holistic visual display of Corps assets across the US to better inform decision making and predict impacts to infrastructure.

How?
- Leveraging existing national datasets as a starting point and extending technology investments in CorpsMap and CWMS could accelerate the time to make this concept operational.
DIS Overview and Relevance

- **History…**
  - The Dredging Information System (DIS) is the USACE national database for all dredging data
  - DIS has been in use for over 25 years

- **Today…**
  - DIS is the system of record that captures a wealth of information including project name, quantity of dredged material, type of dredge, method of disposal or placement, government estimate, winning bid and bidder, and small business status.
  - Used to meet WRDA 2016 reporting requirements
Other Corps Dredging Data

- Other Corps systems have been developed to capture Geospatial Information relating to...
  - Where dredging is taking place
  - Location and capacity of disposal sites
  - Ways to more efficiently use material to provide the highest benefit

- Other sources of contracting data...
  - Resident Management System (RMS) collects dredging information, entered by contractors, covering many of the same post-bid topics that are contract related or required
Creating the E-DIS Project Delivery Team

- Recognizing that the system does not provide internal and external stakeholders with everything that’s needed, this effort is intended to create a group of dredging experts to identify what information is needed to complete the mission.

- Idea first arose after discussions of a 5 year national dredging schedule in July 2018.

- After assigning members for the PDT, the kickoff meeting outlining the effort took place in September 2018 and includes both Corps and Industry stakeholders.
E-Dis PDT purpose

1. Summarize issues and opportunities already identified (in meetings, by email, etc.)

2. Gather feedback to determine whether there are additional opportunities for improvements not yet identified (subject of our next few meetings)

3. Explore opportunities to link or combine DIS with other existing data information systems.

4. Explore ways to increase frequency of data updates

5. Identify and develop data visualization and reporting tools for internal and external stakeholders

6. Identify and develop methods for utilizing DIS data to drive decision support, instead of just data collection
Milestones And Anticipated Schedule

- Identify Opportunities to Improve
  - October 2018
- Come to Consensus on Improvements
  - November 2018
- Obtain Support to Make Agreed Upon changes
  - December 2018
- Begin DIS Improvements
  - January 2019
- Test DIS Improvements with PDT
  - Feb-April 2019
- Continue Updates and Testing
- Finalize e-DIS with Feedback
  - May 2019
- Establish Way Ahead to Identify Future Improvements
  - April 2019
What we’re looking for in the PDT

People familiar with the DIS data entry process

People familiar with the external uses of public dredging reports

People willing to take time on a bi-weekly basis to discuss and test changes to E-DIS
Improvement Ideas Identified to Date

- Linking DIS jobs to data already entered into the Resident Management System (RMS) for a reduced data entry requirement.
- Linking DIS to the Regional Sediment Management (RSM) effort to supply jobs.
- Linking DIS to the CE-Dredge tool to complete the feedback loop of availability and capacity of disposal/placement sites.
- Enhancing spatial awareness of **planned** dredging jobs utilizing existing assets: allow users to enter points and polygons instead of entering a latitude/longitude in degrees, minutes, and seconds.
Improvement Ideas Identified to Date (Cont.)

- Scheduling assistance:
  - Capture all relevant dredging windows across the enterprise
  - Capture dredge inventory and associate jobs to individual dredges
  - Building out 5 year plans (replacing the spreadsheet)
More Information

- **Dredging information at:**
  

  http://cwbi-ndc-nav.s3-website-us-east-1.amazonaws.com/dredge.html

- **Email:**  
  
  CEIWR-NDC.DIS@usace.army.mil

  Forrest.B.Vanderbilt@usace.army.mil
Notice to Navigation Interests Overview and Relevance

- **History…**
  - The Notice to Navigation Interests (NTNI) is the USACE national database for all navigation notices
  - NTNI has been in use for the last three years

- **Today…**
  - NTNI is the system of record that captures information including project or waterway name, type and category of notice, timing information, attachments and POC information.
  - Used to meet Energy and Water Development Appropriations Act, 2005, requirements
Appendix E of EP 1130-2-520

- USACE work planned/in progress, including maintenance dredging and work on jetties and breakwaters
- Deliberate modifications to channel dimensions, including reductions in maintained depths, or changes in other significant project features
- Section 10 permit work which may impact general navigation
- Change in USACE issued navigation regulations
- Special/temporary operating restrictions imposed by the USACE
- Information for correction of USACE charts
- Advance notice of USACE chart revision publication of next edition
- Changes or corrections to NOAA-National Ocean Service-charted features
**NTNI Homepage - External**

[Image of NTNI Homepage]

**Search Criteria**

Search Notice Document, Title, Waterways or Attachment Name: [Search]

**Click the NTNI Nbr to Download the notice. Click any column title to Sort. Click attachment link to Download attachment.**

### Navigation Notices

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<tr>
<th>NTNI Nbr</th>
<th>Amendment Nbr</th>
<th>Begin Date (YYYY/MM/DD)</th>
<th>Title</th>
<th>Waterways</th>
<th>Attachments</th>
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<td>9222</td>
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[Export to CSV]
NOTICE TO NAVIGATION INTERESTS

DATE: 09/05/2017
POC: Michael Tencza
Operations Project Manager
(907) 753-2648

EFFECTIVE: Immediately thru Until Further Notice

AMENDMENT - OBSTRUCTION SURVEY UPDATE
Navigation Notice 4679, POA 17-04

OBSTRUCTION
Norton Sound, Nome Harbor, Alaska

1. All navigation interests are advised of an obstruction in the outer entrance channel to Nome Harbor. The obstruction was identified during the 2015 maintenance dredging operations and confirmed by multi-beam sonar equipment during a 2017 dredge survey. The approximate center location of the obstruction is N64° 29' 41.378", W165° 26' 11.939" as referenced in the attached PDF drawing.

2. The shoalest depth in the vicinity of the obstruction is -21.9 feet mean lower low water. Mariners should exercise caution while navigating this area and report any strikes to Lucas Stotts, Harbormaster (907-304-1906).

3. The approximate obstruction location is based on final survey data submitted by Hughes & Associates to the U.S. Army Corps of Engineers, Alaska District. The approximate dimensions of the obstruction are 4.25 feet long by 3 feet wide by 1 feet tall.

4. The obstruction was identified as a rock using an underwater camera. Reference the attached PDF drawing.

5. The Alaska District will update this notice as soon as additional information becomes available.

Questions regarding this notice may be directed to Michael Tencza, Operations Project Manager (907-753-2648) or Tom Sloan, Chief Geomatics Section (907-753-2658).

#signed#

Julie Anderson, P.E.
Chief, Operations Branch
Engineering and Construction-Operations Division
NAVIGATION POLICY NOTICE

DATE: 03/13/2018

NOTICE NUMBER: 8570
LOCAL NUMBER: Nov 1-2018
WATERWAY: OHIO RIVER
UPPER MISSISSIPPI
EFFECTIVE: Until Superseded

ANNUAL NAVIGATION NOTICE NO. 1-2018
MVD and LRD

Mississippi Valley Division Great Lakes and Ohio River Div
"SEE ATTACHMENT for Complete Document"

INTRODUCTION:

1. As a result of partnering efforts with navigation interests, a consolidated Notice to Navigation Interests has been prepared for the Mississippi and Ohio Rivers and their tributaries. The intent is to provide consistency by replacing current district and division regulations with a joint notice that will be updated annually. The notice is applicable to the St. Paul, Rock Island, Chicago, St. Louis, Louisville, Nashville, Huntington, Pittsburgh, Memphis, Vicksburg, and New Orleans districts.

2. The basic document includes policies of general application to the described areas within the Mississippi Valley and Great Lakes and Ohio River Divisions, while the appendices cite policies applicable to certain rivers or projects. Also included as appendices as an appendix is the Code of Federal Regulations containing the "Blue Book" of navigation regulations prescribed by the Secretary of the Army.

3. Comments on how we may improve this notice may be sent to the U.S. Army Corps of Engineers, Rock Island District, Clock Tower Building, P.O. Box 2004, Rock Island, IL 61204-2004, ATTN: CEMVR-OD-Q (Darla J. Schertz), telephone (309) 794-5366 or email darla.j.schertz@usace.army.mil.

GENERAL:

1. Reference revised Regulations, 33 C.F.R. 207.300, Ohio River, Mississippi River above Cairo, Illinois, and their tributaries; use, administration, and navigation, and 33 C.F.R. 207.800, Collection of navigation statistics. These regulations contain information essential to the navigation of those waters and may be found at Appendix E and Appendix F. Copies of the above regulations may be obtained from lock operators without charge.

2. The following information is furnished in addition to the above-referenced regulations to provide guidance about the procedures, control, and management of the locks on the Mississippi River, Illinois Waterway and Ohio River System. Suggested towboat operations are also included that will enhance safety and reduce damage to Government structures, commercial vessels, and recreational craft.

3. The 2018 Inland Waterways Conference is scheduled to be held at the Hyatt French Quarter, 800 Iberville St, New Orleans, LA 70112 on March 20-21, 2018. For further information see http://www.maritimemeetings.com/inland-waterways-conference.php
Current NTNI Updates

- Internal advancements
  - Migrating to Cloud
  - CAC Enabled log in (one time)
  - One button to publish

- External advancements
  - 508 Compliance
  - Linking to External Data and Partners
    - Exploring an MOU with USCG to reduce duplication of notifications
    - Harmonizing Waterway names
Improvement Ideas Identified

- Enhancing spatial awareness of notices: allow users to enter points and polygons or select existing facilities along with other geographical names.
Improvement Ideas Identified

- Enhanced view and search functionality on the public and internal NTNI site
- Increase number of characters in field codes
- Integration/data exchange with Districts American Forces Public Information Management System (AFPIMS) websites
- Auto-populate draft notices from DIS/LPMS
More Information

- Public NTNI page at: http://NTNInotices.usace.army.mil
- Email: ceiwr-ndcntni@usace.army.mil
- Forrest.B.Vanderbilt@usace.army.mil
Questions?