

# Dredging Operations Technical Support (DOTS) Program

**Cynthia J. Banks**

Program Manager

Vicksburg, MS

Cynthia.J.Banks@usace.army.mil

**National Dredging Meeting**

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# DOTS Overview

- Primary technology transfer mechanism for dredging and navigation since 1978
- Provides “one-door-to-the-Corps” access to comprehensive information on technology related to navigation O&M functions
- Program functions include rapid, short-term technical responses for the field, technology demonstrations, training, database management, publications, and development and dissemination of technical guidance



# USACE Campaign Plan Alignment

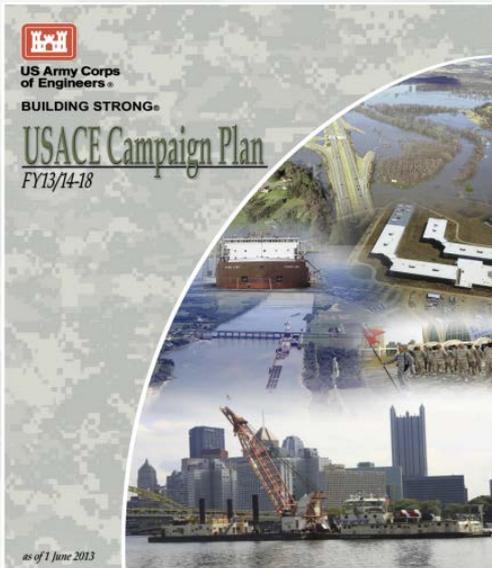
- Goal 4: *Prepare for Tomorrow*

- ▶ Objective 4a

- Action 4a1 – Develop new Science and Technology (S&T)
- Action 4a2 – Improve knowledge creation/sharing and technology transfer
- Action 4a3 – Improve technology infusion policy and innovation

- ▶ Objective 4d

- Action 4d1 – Shape the workforce for the future
- Action 4d2 – Increase STEM



# Technology Transfer Scope

Despite “Dredging” in the title -

**NOT LIMITED TO DREDGING!**

*But Rather to the Broader  
Navigation Mission*



# Direct Technical Support

- A response can...
  - ▶ be initiated by submitting a request through the DOTS Tracking System  
<http://el.erd.c.usace.army.mil/dots>.
  - ▶ consist of up to 2 weeks of scientist or engineer time & travel expenses.
  - ▶ range from a phone call “one stop”, to a technology demo, to a site visit.
  - ▶ result in products such as a technical documents or reviews.
  - ▶ In FY13, 54 technical responses were fielded from multiple Corps Districts/Divisions.



# FY13 Requests



54 Requests / 26 Districts / 1 Division



# FY14 Requests

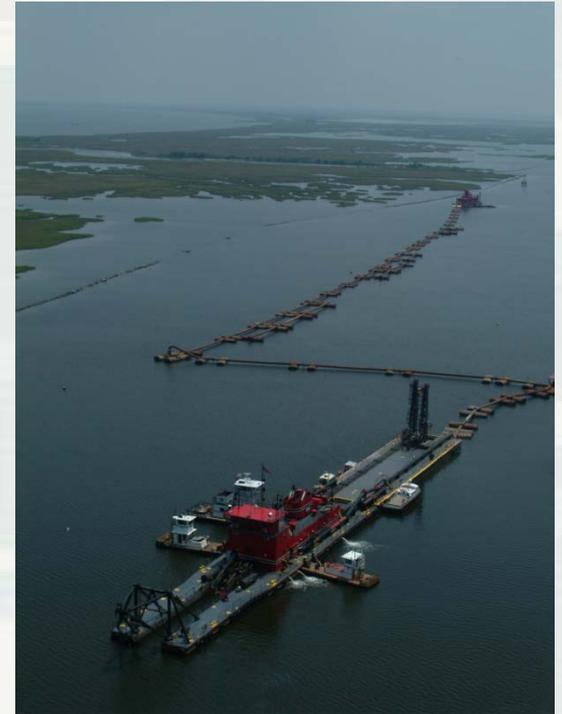


47 Requests / 24 Districts / 3 Divisions



# Common Requests

- Modeling Support (e.g., STFATE)
- Ship Simulations
- Training Sessions
- Workshops
- Literature Reviews
- Technical Writing Assistance
- One-stop Assistance  
(e.g., e-mail, conference call)



# DOTS Web-Based Training Program

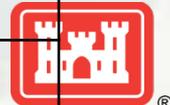
Date	Presenter	Topic	Number of Participants
29 May	Mr. Joe Wilson	USACE National Dredging Program and Regulations	150
26 Jun	Mr. Tom Verna	An Overview of USACE Dredging Operations	90
31 Jul	Dr. Jeff Steevens	Dredged Material Evaluation and Testing – Part 1 (Aquatic)	100
28 Aug	Dr. Trudy Estes	Dredged Material Evaluation and Testing – Part 2 (Upland Disposal)	80
18 Sep	Mr. John Childs	Beneficial Uses of Dredged Material	120
6 Nov	Dr. Todd Bridges	Engineering With Nature	90
4 Dec	Mr. Tim Welp	An Overview of Dredging Equipment and Methodologies	100
29 Jan	Dr. Burton Suedel	Environmental Windows using Effects Data	60
26 Feb	Dr. Tom Fredette	Engineering With Nature Project Mapping Tool (EWN ProMap)	90
26 Mar	Mr. Rob Thomas Mr. Klay Williams	SEDiment MANagement (SEDMAN) Web Application	80
30 Apr	Dr. Deborah Shafer Ms. Cheryl Pollock	A Rapid Deployment System for Assessing Exposure of Biological Communities to Dredging Plumes	75
25 Jun	Ms. Linda Lillycrop	Regional Sediment Management and Sediment Management Tools	?



PDHs Now Offered!



U.S. ARMY



# DOTS Technical Activities

- Purpose: To compare effects of different operational strategies and management treatments on endangered ILT populations below major dams
- Products:
  - ▶ Rangewide ILT Survey
  - ▶ Least Tern Population Dynamics Model
- Outcome: Reduce impact of ILT on dredging program/potential de-listing of ILT



Interior Least Tern



[www.leasttern.org](http://www.leasttern.org)



# Databases

- Environmental Effects & Dredging and Disposal Literature Database (E2-D2)
- Ocean Disposal Database (ODD)
- USACE Threatened, Endangered, and Sensitive (TES) Species Protection and Management System
  - ▶ TES Cost Accounting Template

**Ocean Disposal Database**  
Dredging Operations Technical Support

Introduction | About Ocean Disposal | Database Structure | ODDMS Summary | ODDMS Search | Disposal Search | Contact

### Welcome to the Ocean Disposal Database

The Environmental Lab (EL), an entity within the U.S. Army Engineer Research and Development Center (ERDC) maintains the Ocean Disposal Database for dredged material. This website provides open access to information for over 100 Ocean Dredged Material Disposal Sites (ODMDS) most of which include a description and a map, as well as a list of dredging projects that have used the sites to dispose of dredged sediments. This information is provided to support the U.S. Army Corps of Engineers (USACE) district personnel and the U.S. Environmental Protection Agency (EPA) for monitoring and management activities at each ODMDS. Other interested parties are welcome to browse and download data as well.

The data date back to 1976, and care has been taken to accurately present the data displayed at this website. However, if you find there may be an error please notify the [database manager](#).

**Participants**  
[Dredging Operations Technical Support \(DOTS\)](#)  
[U.S. Army Corps of Engineers](#)  
[U.S. Army Corps of Engineers Environmental Lab, ERDC](#)  
[U.S. Environmental Protection Agency](#)  
[International Maritime Organization](#)

For data requests, comments, questions please contact the [Database Manager](#)

Beach nourishment using a 1000X dredge, Somewhere, South Carolina

Data downloaded for use should be credited as follows: Ocean Disposal Database. (Year). Environmental Lab, U.S. Army Corps of Engineers Engineer Research and Development Center. Retrieved (Month, day, Year) from <http://el.erc.usace.army.mil/odd/>

**ERDC**  
Engineer Research and Development Center

HOME | MATERIAL CHARACTERIZATION | COMPUTATIONAL MODELING | SITE & TRANSPORT ASSESSMENT | TOXICITY | DATABASES & DATABASES & RESOURCES | CONTACT  
US ARMY CORPS OF ENGINEERS | ENGINEER RESEARCH AND DEVELOPMENT CENTER | ENVIRONMENTAL LABORATORY



# Strategic Direction

- Increase DOTS requests
- Annual DOTS Newsletter
- Recruitment strategy (senior/junior researcher pairings)
- Increase STEM education outreach
- Strengthen collaborations/partnership with federal agencies, industry, academia, etc.
- Increase synergy with Navigation RD&T Programs



# Input from you...

## How can DOTS assist you?



## Dredging Operations Technical Support Program

U.S. Army Corps of Engineers | Engineer Research & Development Center | Environmental Laboratory



Program Manager: [Cynthia Banks](#)  
Program Monitor: [Joseph Wilson](#)

The Dredging Operations Technical Support Program, known as DOTS, provides direct environmental and engineering technical support to the U.S. Army Corps of Engineers Operations and Maintenance (O&M) navigation and dredging missions. Technology transfer activities have supported diverse field needs for years and have directly benefited O&M dredging operations throughout the United States.

### [Submit a DOTS Request](#)



### [Upcoming Events](#)

- The DOTS Program Webinar Series Continues in 2014!
  - [Archive of Webinars](#)
  - Please join us for our next webinar [An Overview of Regional Sediment Management \(RSM\) and Sediment Management Tools](#) presented by [Ms. Linda Lillycrop](#), RSM Program Manager, of the U.S. Engineer Research and Development Center. This webinar will occur on Wednesday, June 25, 2014 at 1:00 PM Central Daylight Time. If you would like to sign up for this webinar, please contact Cynthia Banks at [Cynthia.J.Banks@usace.army.mil](mailto:Cynthia.J.Banks@usace.army.mil).

### [Take a Trip Through a Dredge!](#)

- What's New
- Research
- Databases
- Beneficial Uses of Dredged Material
- Publications
- Guidance Documents
- Models
- Center for Contaminated Sediments
- Expertise/Contacts /Research Teams
- Training
- Dredging Resources
- Education Center
- Related Sites
- ACCORD



<http://el.erdc.usace.army.mil/dots/>

