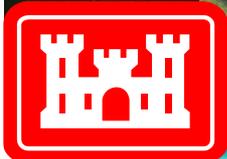


# Inland Waterways Users Board #60

## Inland Navigation R&D

19 February 2009

Vicksburg, MS



# Agenda

**0845 - 0900**

**Welcome**

**Dr. Jeff Holland**

**0900 – 0920**

**Agenda & Navigation R&D Overview**

**Mr. Jeff Lillycrop**

**0920 - 0940**

**Mississippi River Basin**

**Dr. John Hite**

**0940 – 1000**

**Columbia River Basin**

**Ms. Jackie Pettway**

**1000 – 1200**

**Tour of Models**

**Ship Simulation**

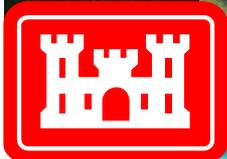
**McNary Lock & Dam**

**Lock 25**

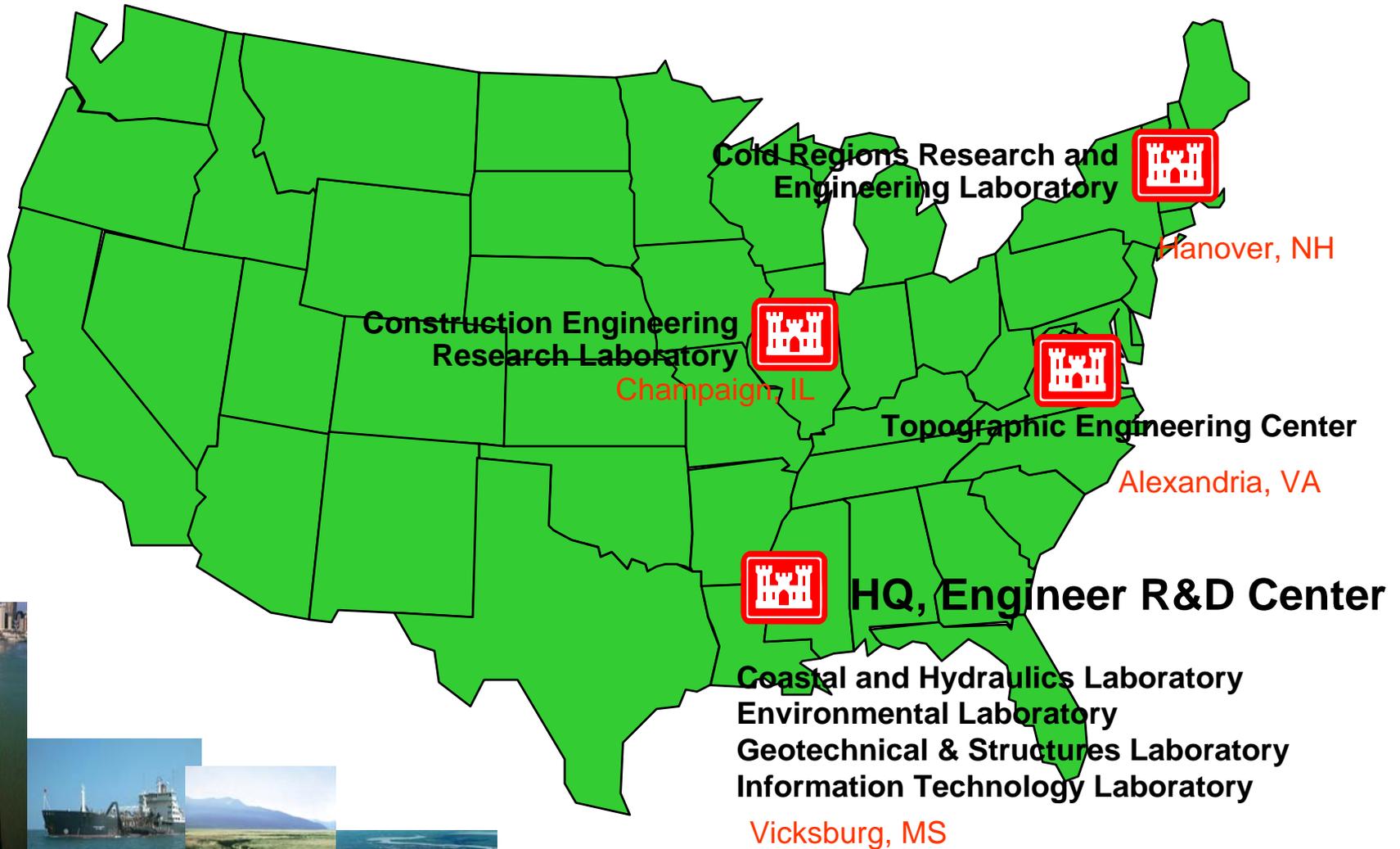
**Upper MS Lock fill/empty**

**1200**

**Depart for Lunch & River Tour**



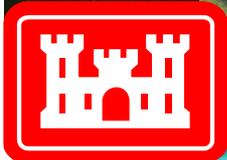
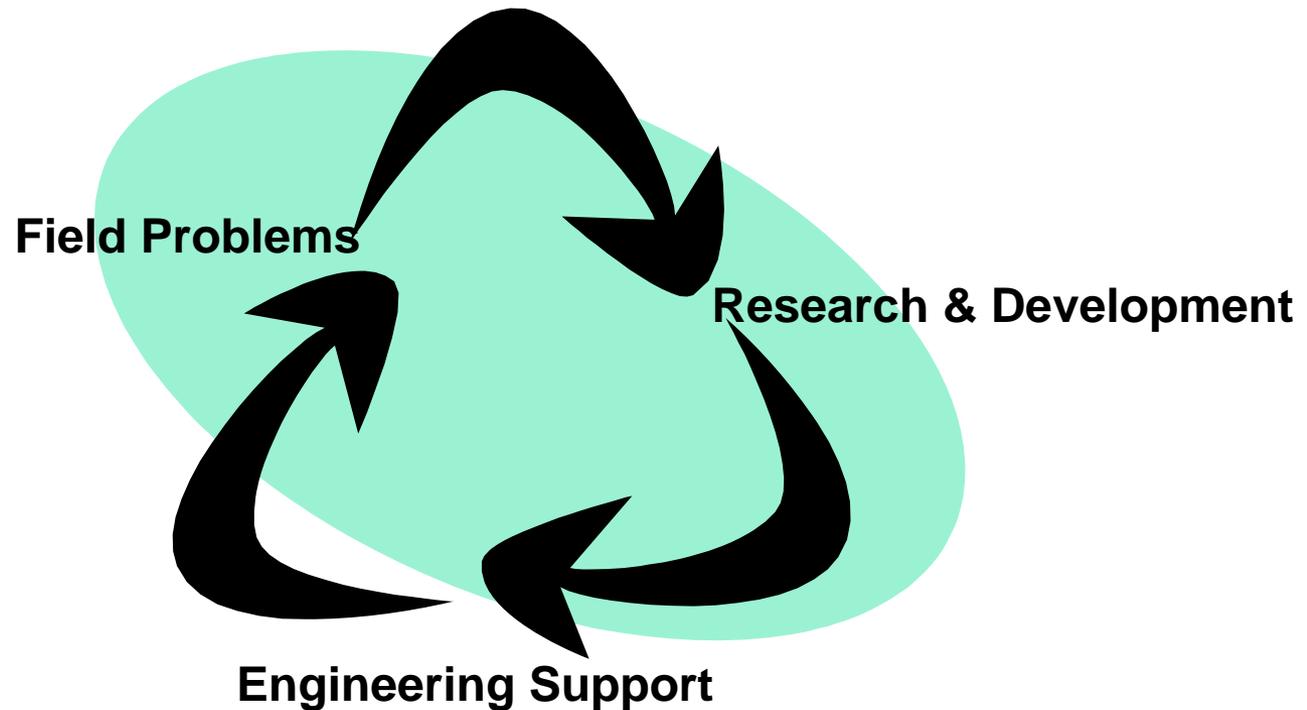
# Engineer Research & Development Center



**Navigation Research and Development**

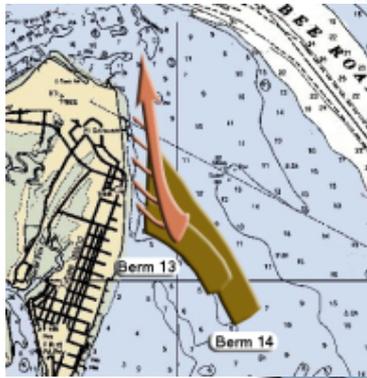
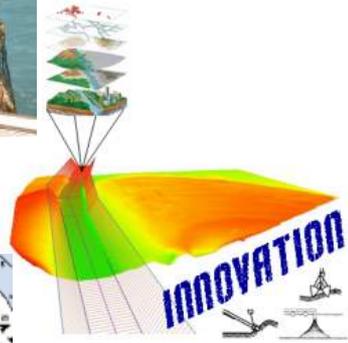
Engineering Research and Development Center

# Navigation Research, Development, and Engineering Support

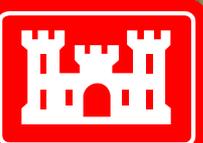


# Dredging Operations Environmental Research

- Environmental Resource Protection
- Operations Technologies
- Dredged Material Management
- Risk

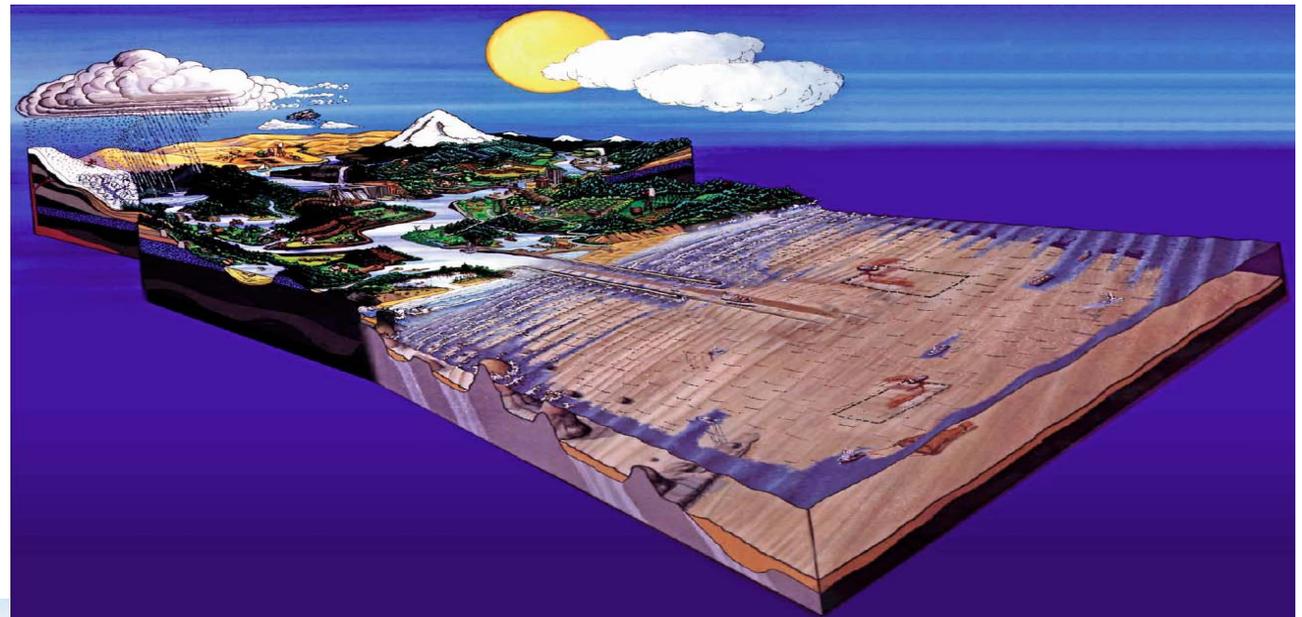


PM: Dr. Todd Bridges  
APM: Edmond Russo



# Regional Sediment Management Program

Improving sediment management practices through a system-based approach



PM: Dr. Jeff Waters

# Monitoring Completed Navigation Projects

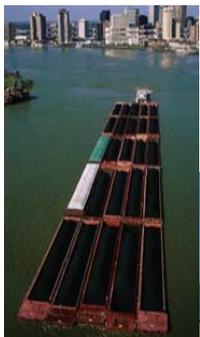
Monitor completed Coastal and Inland Navigation projects to test and evaluate innovative design approaches

- Strengthen design criteria and methodology
- Improve construction practices and cost effectiveness
- Enhance Operation and Maintenance techniques



★ Kaunalapau Harbor, Island of Lanai, HI

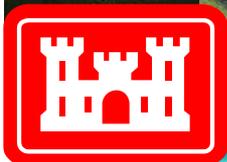
★ Periodic Inspections (around the Nation)



PM: Dr. Lyn Hales

Navigation Research and Development

Engineering Research and Development Center



# Coastal Inlets Research Program

Program Management and Technology Transfer

*Nick Kraus*

Sediment Management

Structures and Navigation

Bypassing  
and  
Nearshore  
Berms

*Alex Sanchez*

Geomorphic  
Evolution

*Nick Kraus*

Inlet  
Channels  
and  
Estuaries

*Julie Rosati*

Advanced  
Navigation  
Simulation

*Lihwa Lin*

Coastal  
Structure  
Asset  
Management

*Ned Mitchell*



**PM: Dr. Nick Kraus**

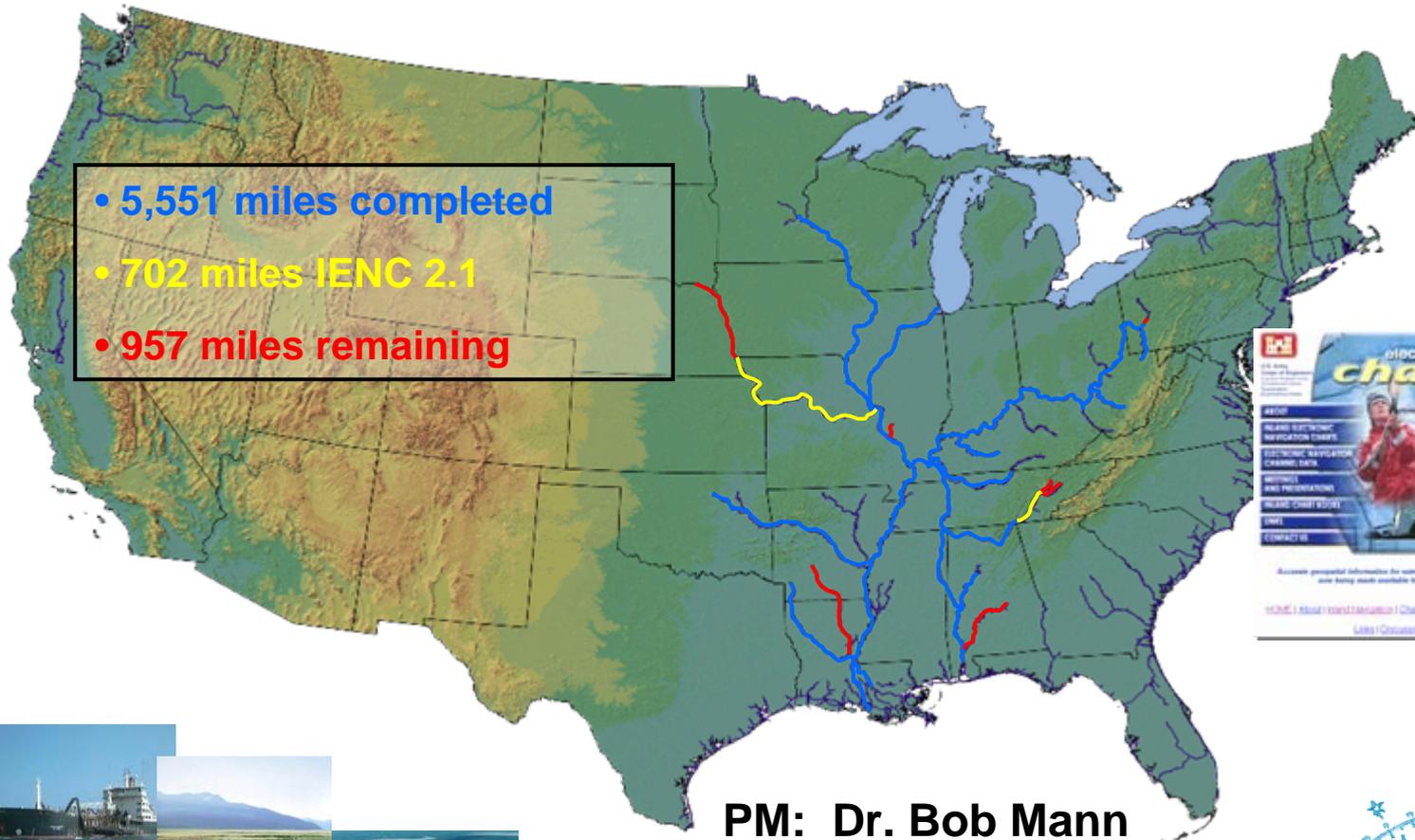
**APM: Julie Rosati**

**Navigation Research and Development**

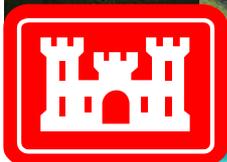
Engineering Research and Development Center

# Inland Electronic Navigational Charts

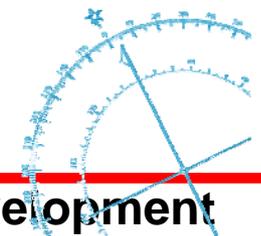
7210 mi. of inland waterways/ivers are scheduled for IENC Coverage



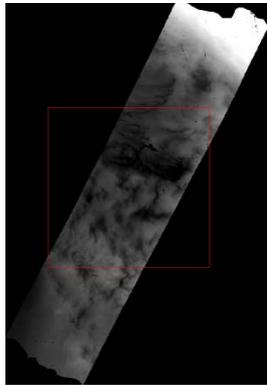
Cumberland River



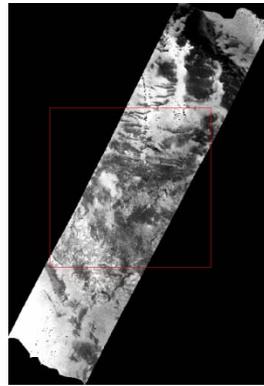
PM: Dr. Bob Mann



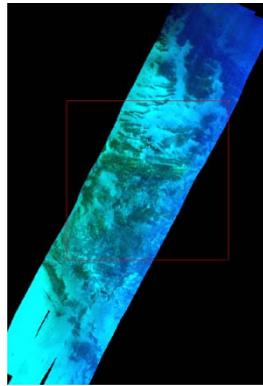
# Coastal Zone Mapping and Imaging Lidar



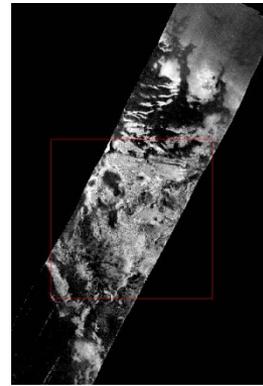
depth



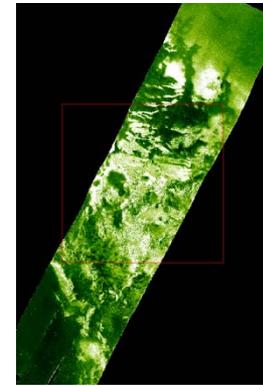
seafloor reflectance



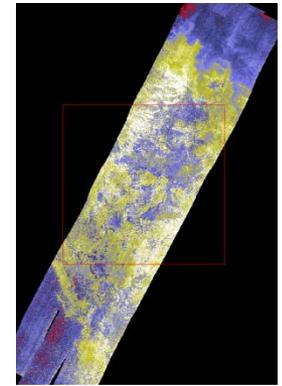
RGB



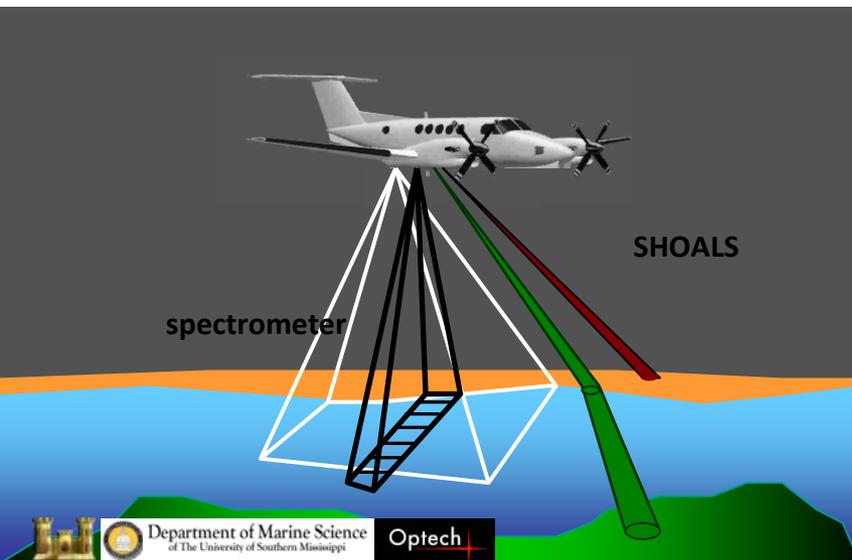
attenuation



chlorophyll



CDOM



bottom classification

FY08/09 detailed design  
 FY09/10 fabrication  
 FY10/11 field test and deploy  
 for National Coastal  
 Mapping Program

PM: Jennifer Wozencraft



# Navigation Economic Technologies

**NETS**  
navigation • economic • technologies

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**ISSUES**

**APPROACHES**

**ACTIVITIES**

- Coastal Navigation
- Inland Navigation
- Multimodal Transportation

**BOOKSHELF**

**TOOLBOX**

**NETS TEAM**

**NETS NEWS**

*Developing State-of-the-Art Tools and Techniques for Economic Modeling & Analyses to Help Meet Tomorrow's Navigation Challenges*

The U.S. Army Corps of Engineers is committed to spending the nation's tax dollars wisely by investing in navigation projects that provide the best value for the dollar long term. The Navigation Economic Technologies (NETS) program supports this mission by developing independently-verified economic models, tools and techniques.

Our web site is designed to provide the latest information on the NETS team, the issues we are addressing, the approaches we are using and the status of our activities. The NETS bookshelf contains final reports and policy guidelines, while the toolbox holds final instruments, models, etc. that result from our research. For regular updates on our progress, sign-up for [NETS News](#), a monthly e-newsletter delivered directly to your inbox.

[www.CorpsNets.us](http://www.CorpsNets.us)

US Army Corps of Engineers®



**PM: Keith Hofseth**

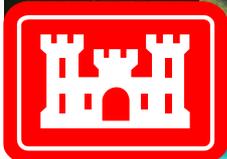
**Navigation Research and Development**  
Engineering Research and Development Center

# Dredging Operations Technical Support

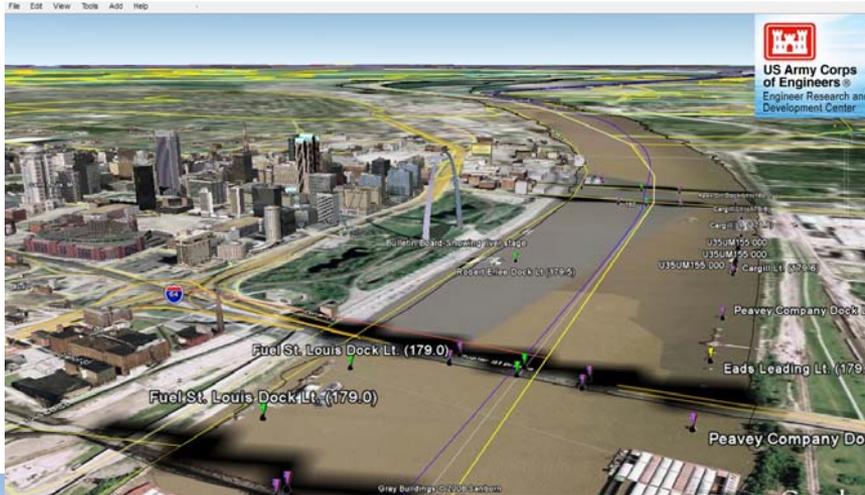
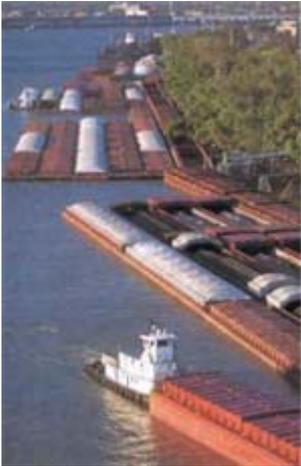
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PM: Dr. Doug Clarke

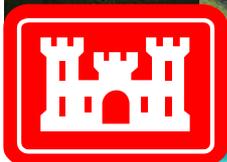


# Navigation Systems



PM: Jim Clausner

Navigation Research and Development  
Engineering Research and Development Center

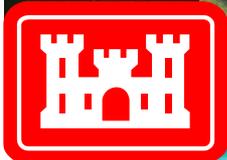


# Current Events

**Inland Navigation Technology 09: digital technology's impact on safety and efficiency (3-4 Feb) 60 from Industry, Coast Guard, NOAA, Academia, Corps**

**Established an Industry / ERDC Working Group with the Dredging Contractors of America**

**Proposed a R&D Interagency Action Team under the Committee on the Marine Transportation System**



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