

USACE SI National Support Center, USACE Mobile District, (877) 840-8024, <http://si.usace.army.mil>



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The SI Center can be contacted directly at 251-690-3011, toll free at 1-877-840-8024, or by e-mail at [si-support@usace.army.mil](mailto:si-support@usace.army.mil). Additional information is available at <http://si.usace.army.mil>

## SI Website Gets Makeover!

The SI website <http://si.usace.army.mil> is being updated to provide more detailed information regarding the implementation of SI such as explain the SI mission and uses of SI data, answer commonly asked questions, allow downloads of the latest specifications and documentation, provide information regarding updates to tools, software, guides, etc, and provide status of SI certifications. The updated website will be available in early May 2008.

## SI Database Moves to New Home

All of the dredging data reported through SI resides in a single relational database located at the Coastal and Hydraulics Laboratory at ERDC in Vicksburg, Ms. The plan for standing up the SI support center included relocating the database and upgrading to USACE standards for security and reliability. A team of the SI support center, Mobile District Spatial Data Branch, and the Mobile District ACE-IT group developed a plan to transition to new system located in the Mobile District and a secondary site provided by ACE-IT.

The new machine is up and running the SI database in Mobile. Currently, staff are testing the database. The SI Mail robot program that receives data from the field, transfer data to the database, and emails reports and status to the dredging project team members will also be tested. The testing is in its final stages, and the Center anticipates the migration to be completed in early May 2008 with no noticeable change to be recognized by the contractors or users. Once operational, SI users will experience faster response time for the SI Data Explorer and SI Plots programs. The improved security and reliability will maintain data availability during single machine failure and network or utility interruptions.

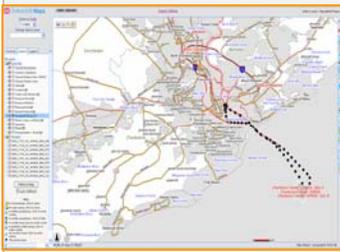
## SI User Group Formed

An SI User Group was established in FY08 to improve communication and coordination with the actual users of the SI, and to identify improvements and enhancements which would assist and improve their efforts to utilize the SI tools and data. A User Group meeting was held in conjunction with the USACE Sea Turtle Coordinators workshop in March 2008 in Atlanta, GA. The User Group developed SI Roles and Responsibilities flowcharts for Civil Works and Permit dredging operations. The flowcharts present the actions required and identify the responsible party among the SI Center, District, and Contractor. The SI Center is working to address and/or incorporate feedback and enhancements obtained from the User Group into the SI Program and tools. The next User Group meeting will be held in October 2008.



### What is the Silent Inspector (SI)?

The SI Program is a Corps-Dredging Industry partnership for automated dredging monitoring of Corps dredging projects. Onboard sensors monitor dredge activities, operations and efficiency. Data is routed to the SI Support Center for data retrieval and storage. Districts may utilize Corps-provided software to prepare summary reports, plots or spreadsheet compilations of dredge operations. In addition to assisting dredge inspectors for monitoring performance, the data can be used to improve business practice, ensure environmental compliance, provide dredging information and data to support the National Dredging Mission, and increase our understanding of dredging science and technology.



The most up to date SI specifications are available on the SI Website: <http://si.usace.army.mil/specifications.asp>. The following lists the latest revision dates; these should be used for current dredging specifications:

Hopper Dredges – March 2008  
Scows (Tracking, Monitoring, Ullage, TDS profiles) – March 2008  
Mechanical Dredges – out for review, comments to SI BoD by May 6, 2008  
Pipeline Dredges – Coming May 2008

### How do the new guide specs differ from the old ones?

Reorganized  
Include SI Certification requirement  
Contain a punch-list of DPIP requirements  
Are totally performance based  
Standardize reporting across Districts (Lat/Long & UTC)  
Contain updated computer requirements  
Do not restrict data transfer equipment to satellite phone  
Emphasize need for daily data transfers  
Assess Liquidated Damages if not Fully Operational  
Address SI Board item clarifications

## Upcoming Products and Tools

- “Quick Reference Guides” for Contractors and USACE
- Video Tutorials accessible on the website
- Revise Users Manual for different systems (hopper, pipeline, scow, ..)
- Revise SI Primer
- Improve data transfer to SI Center and EPA

### QA Robot

The SI QA robot will perform checks on the data in a post-processing mode as the data come in. The user will see more messages and QA information from the load and daily email reports, as well as additional/revised alarm reports from the SI data explorer.

### SI Toolbox

The SI toolbox is currently designed to be used by center staff to fix problems with the data identified by the QA robot. Problems such as incorrect load numbers and data spikes can be repaired (with sufficient knowledge about what actually should be happening on the dredge). Then the data can be reanalyzed, improving the quality of the data reported by the SI.

### Ocean Disposal Tool

The Ocean Disposal Monitoring (ODM) Tool is being developed utilizing GIS and Web technology to assist Users in monitoring placements in EPA ocean disposal sites. The tool will allow visualization of mapping layers such as nautical charts, channel segments, disposal areas, dredge track, etc. Through the SI monitoring and reporting of dredge location and corresponding hopper door status (open/closed), disposals occurring outside disposal sites will be flagged allowing Districts to evaluate the load activity and report to EPA. Once data are approved by the Corps Districts, SI data will be automatically transferred to the EPA.



## SI Assists in Assessment of Whale Protection Measure

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As a whale protection measure, Doug Piatkowski (SAW) and Terri Jordan (SAJ) conducted an evaluation to determine the impact of a proposed 10 knot speed restriction on hopper dredges and scows. In order to conduct the evaluation, data required included the percentage of time hopper dredges and scows were sailing above 10 knots. At the request of SAW and SAJ, the SI Center performed a special query on the SI database for a variety of projects. The queries determined that the dredges do indeed travel above 10 knots when practical, which is dependent on the nature of the work and the capability of the dredge. For example, a dredge digging at an offshore borrow site for a beach renourishment contract will spend more time sailing at high speed than when the dredge is working in a constricted channel. Also, various dredges have different top speeds due to size and engine power, and the speeds vary depending on whether the dredges or scows are sailing loaded or unloaded.

## SI Certification Status

In FY08, 15 hopper dredges and 30 scows were inspected were completed by the SI Center. Maintaining scow certification is hindered due to the removal of equipment once certified or after a job is completed.

Hopper	Last Inspection	DPIP Submittal	Fully Certified
Atchafalaya	12/03/2007	02/27/2008	X
Columbia	08/28/2007	02/27/2008	X
Stuyvesant	05/22/2007	09/21/2004	
Dodge Island	08/23/2007	12/21/2005	X
Liberty Island	11/15/2007	03/26/2007	X
Padre Island	11/19/2007	12/21/2005	X
Terrapin Island	02/07/2008	03/21/2008	X
Bayport	08/13/2007	02/26/2008	X
Glenn Edwards	02/21/2008	10/29/2007	
Newport	07/10/2007	02/06/2005	X
Westport	07/24/2007	04/26/2006	X
BE Lindholm	08/16/2007	11/28/2005	X
RN Weeks	08/16/2007	02/21/2006	X
McFarland	06/06/2007	09/07/2007	X
Essayons	08/30/2007	03/17/2003	
Wheeler			
Yaquina			

### SI Mission Statement

The mission of the SI Support Center is to provide Corps-wide technical support for SI implementation including dredge certifications, data quality control, database management, and support for the SI desktop software; to provide tools to access and analyze SI data; and to continue to evolve capabilities to support Corps dredging needs. Operational support includes tools and services to assimilate, analyze, and report dredging quality assurance data.

## SI POCs Wanted

The SI Center requests that Districts and Divisions provide the Center with Point of Contacts for Contract, Regulatory, Turtle Coordinators, and Environmental Compliance. POC contact information can be emailed to [si-support@usace.army.mil](mailto:si-support@usace.army.mil)



## SI Board of Directors

The SI Board of Directors (BoD) was established in FY07 to represent the interests of the USACE in the administration of the public-private partnership for automated dredge monitoring through implementation of the SI. The BoD shall formulate the policies that guide SI implementation by Major Subordinate Commands (MSCs) and the National Support Team in the Mobile District. This includes the implementation schedule of mandated dredge monitoring, certification of dredge plant, requirements for government owned dredges, access rights to dredging data, implementation of SI in regulatory permits, and the mechanism for funding the costs of the national support team. The BoD is made up of representatives from USACE HQ, Divisions, and Districts, as well as the Dredging Contractors of America. The next SI BoD meeting is scheduled for 6 May 2008, in Washington, DC.

Some issues the BoD is currently addressing: SI data release policy, Regulatory implementation; liquidated damages; scow definition; data communication technology; evaluating pipeline demonstration; assessing benefits.

### Completed SI Training

Division	Participating Districts	Date
POD	Alaska	May 2006
SWD	Galveston	Jul 2006
SAD	Savannah	Oct 2006
SAD	Jacksonville	Oct 2006
NAD	Baltimore, Norfolk, New England, Philadelphia	Nov 2006
SAD	Charleston, Wilmington	Jan 2007
NAD	New England	Feb 2007
LRD	Buffalo	May 2007
LRD	Detroit	May 2007
LRC	Chicago	Aug 2007
SPN	San Francisco	Sep 2007
NWD	Portland	Mar 2008

### Upcoming Events

**6 May 2008**, SI Board of Directors meeting, Washington Court Hotel, Washington, DC.

**9-11 June 2008**, WEDA XXVIII AND TAMU 39 Conference, St Louis, MI  
SI Presentation: " An Overview of the Silent Inspector Inspection and Certification Process for Hopper Dredges and Scows," Zichichi, Puckette, and Allen.

**August 2008**, Quarterly SI Newsletter, "Lessons Learned", Please submit Newsletter information to the SI Center at [si-support@usace.army.mil](mailto:si-support@usace.army.mil) by 15 July 2008.

**October 2008**, SI User Group Meeting, details TBD

**5-7 November 2008**, WEDA Pacific Chapter Annual Meeting, Seattle, WA

