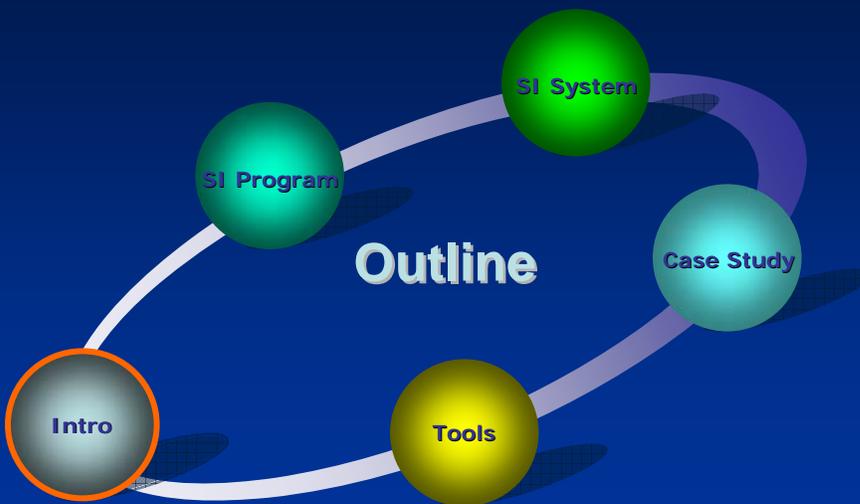


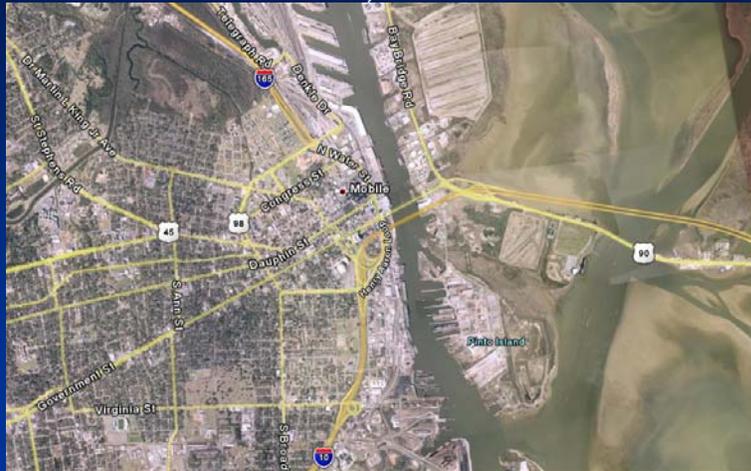
Silent Inspector



Introduction



Silent Inspector Center USACE Mobile District Mobile, Alabama



Why Mobile District??

- 6 Years SI monitoring of contracts
- Successful SHOALS transition from R&D
- SI Synergy with eCoastal & eGIS
- Experience with Ops, R&D, & IM teaming
- Required IT infrastructure in place



Silent Inspector Board of Director Members

Name	Affiliation	HQ	
Fuller, Wynne	(Chairman) SAM		
Bossert, Vinton	MDC	Walker, Jim	HQ, CECW-OD
Carrubba, Sheryl	NWP		
Donohue, Catherine	NAD		
Clark, KC	MVN		
Domurant, George	SPD		
Dyess, Carl	SAM		
Engle, Lance	MVS		
Godfrey, Chris	NAE		
Hrametz, Joseph	SWG		
Holliday, Barry	DCA		
Linna, Chad	LRD		
Mitchell, Carsno	SWL		
Premo, Angela	SAD		
Russo, Edmond	ERDC		
Stupplebeen, Helen	POD		
Trott, Kathy	HQ, CECW-LRD		

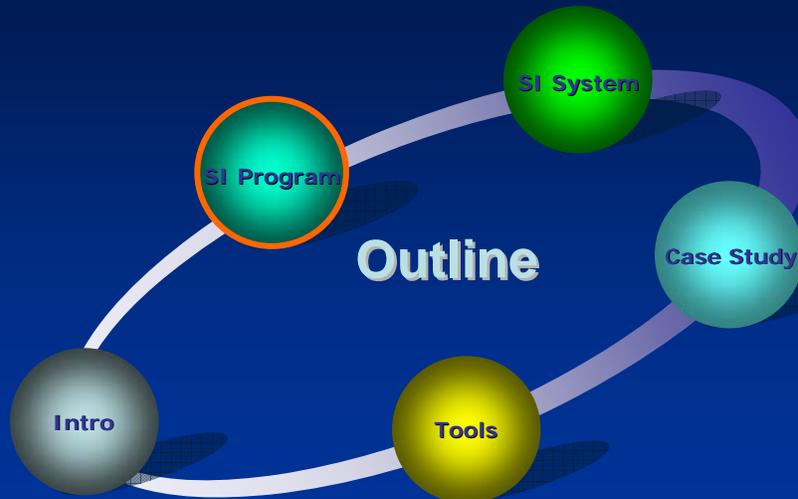


Silent Inspector Board of Directors Action Items

- SI Funding – Report to DCW
- Regulatory PDT to coordinate with regulatory community RGL implementation requirements
- Revise SI specifications and permit conditions
 - Dredge location reporting - "upon notice to proceed"
 - Ullage table
 - Turtle deflector approach angle
 - Water temperature at draghead
- Compile SI success stories, SI benefits
- Pipeline Implementation – recommendations
- SI data collection standards
 - contract types, standardize, consistency
- Review SI funding strategies
- ID hopper dredges equipped with SI, strategy for implementation
- Develop thresholds for scow monitoring
- SI implementation on mechanical dredges – recommendations
- Evaluate data communications technology updates
- Develop SI data release policy



Silent Inspector Program



Silent Inspector Program

- Mission: To Provide Corps-wide technical support of dredging through automated tools and services and to evolve these capabilities to meet our growing needs.
- Operational support includes tools and services to assimilate, analyze, and report dredging quality assurance data at the national, watershed, and project levels.
- Evolution of these capabilities includes developing, integrating, and diffusing dredging data and decision support tools and services throughout the Corps.

Silent Inspector

Government Benefits

- 24x7 coverage of operations
- Flexible scheduling of human inspectors
- Fast response to public and environmental inquiries
- Reduced claims
- Better government estimates
- Improved dredging management



Industry Benefits

- National standard specifications
- National standards for automated reporting
- Reliable digital record of operations and performance
- Minimize disputes
- Faster dispute resolution



Training

- SI Training at District Level
- Address key points related to Business Process

Division	Training Location	Tentative Dates
• CESWD	Galveston, TX	6-7 July 2006
• CEMVD	St. Paul, MN	October 2006
• CESAD	Mobile, AL	October 2006
• CESP	Sacramento, CA	November 2006
• CENAD	Norfolk, VA	November 2006
• CENWD	Portland, OR	November 2006
• CELRD	Detroit, MI	December 2006
• CEPOD	Honolulu, HI	December 2006



FY07 Training

- POD – ALASKA
- SWD – GALVESTON
- SAD – SAVANNAH, JACKSONVILLE, CHARLESTON, WILMINGTON
- NAD – NEW ENGLAND, PHILADELPHIA, BALTIMORE, NORFOLK
- LRD – BUFFALO, DETROIT

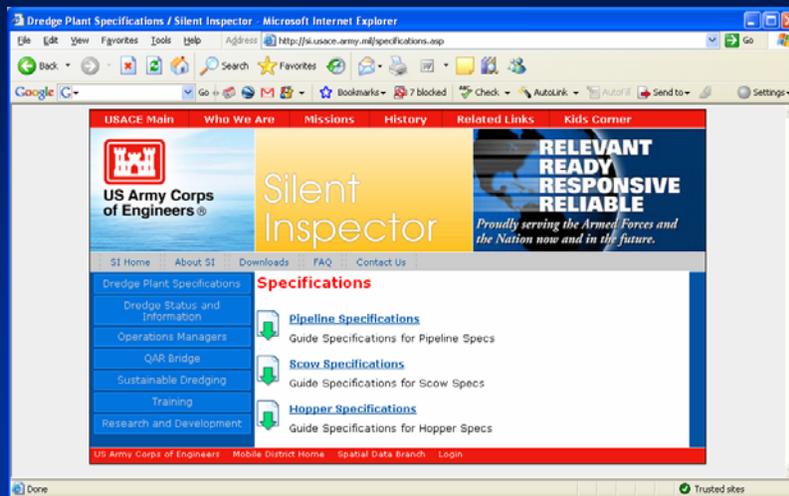


Certification

- Quality Assurance Checks
- SI Operating Screen Data Reporting Verification
- Contractor Provided Equipment Available and Satisfactory
- Dredge Plant Instrumentation Plan (DPIP) Content Review
 - Sensor Documentation
 - Required Dredge Computations and Documentation*
 - Hopper Volume and Vessel Displacement
 - Vessel Characteristics
 - Hopper Characteristics
 - Overall dredge dimensions indicating the locations of the fore and aft draft sensors with regard to
 - Instrumentation Quality Control Methods



Guide Specifications

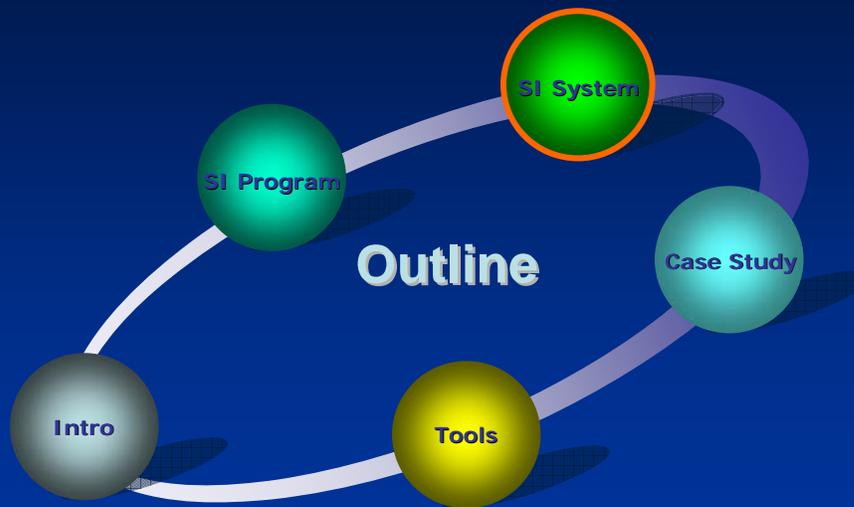


FY07 Planned Pipeline Projects

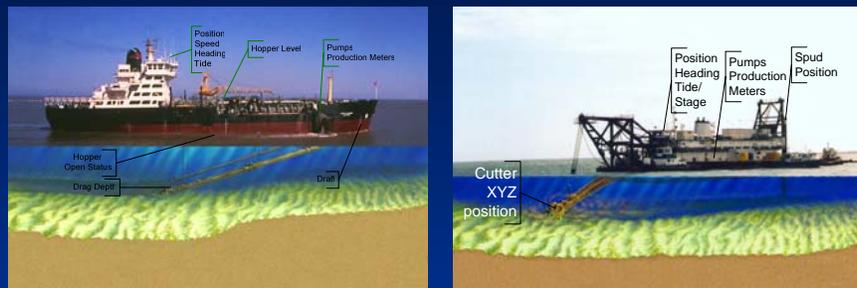


Illinois – Folley Beach
Goetz – St Paul District
Oregon – Portland District
Potter – St Louis District

Silent Inspector System



Silent Inspector System

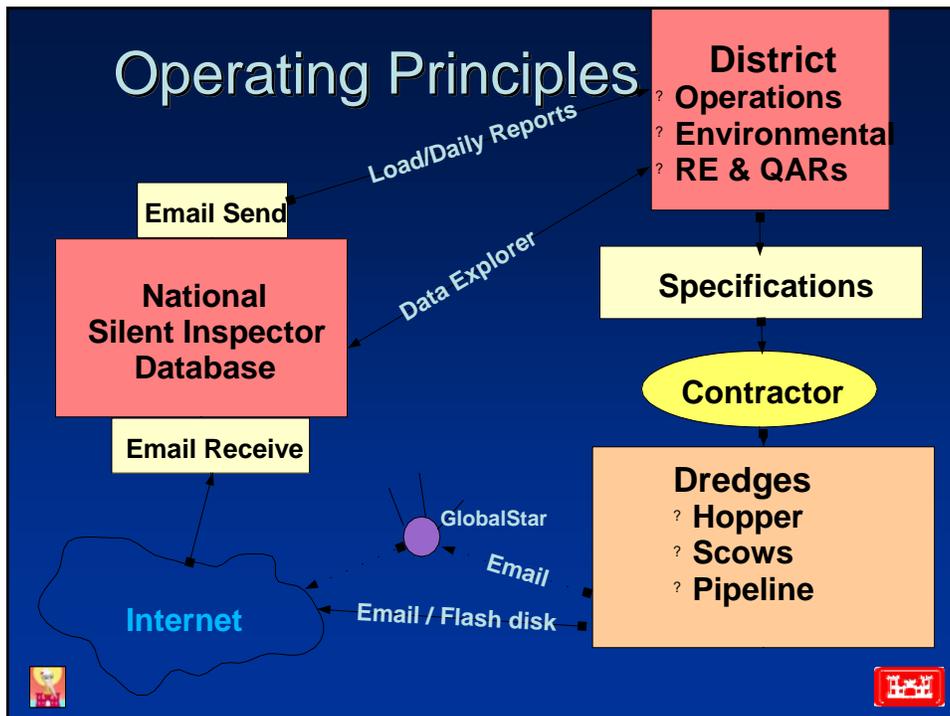


Silent Inspector System

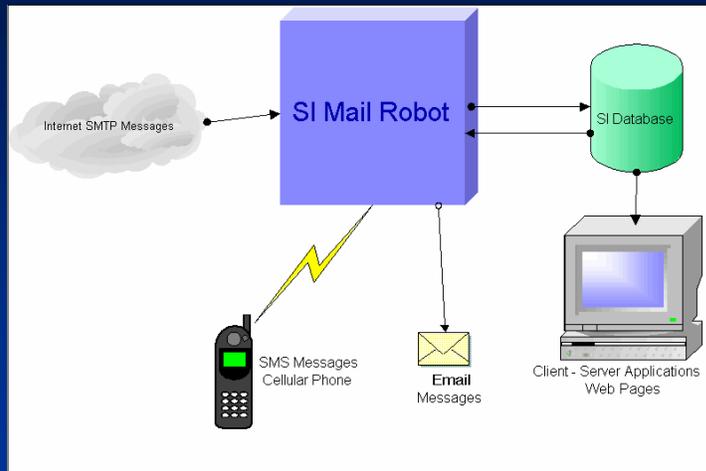
- Uses contractor's sensors and instrumentation
- Corps does QA and analysis
- Contractor hardware - Corps Software
- Reports dredge measured parameters that describe dredge operations
- Analyzes the data to determine what the dredge is doing – dredging, turning, sailing, dumping.
- Stores, finds, reports, & plots data



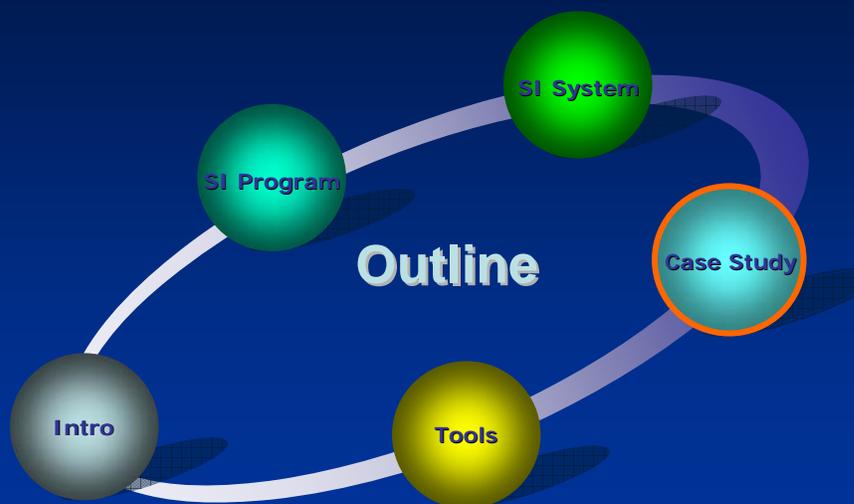
Operating Principles



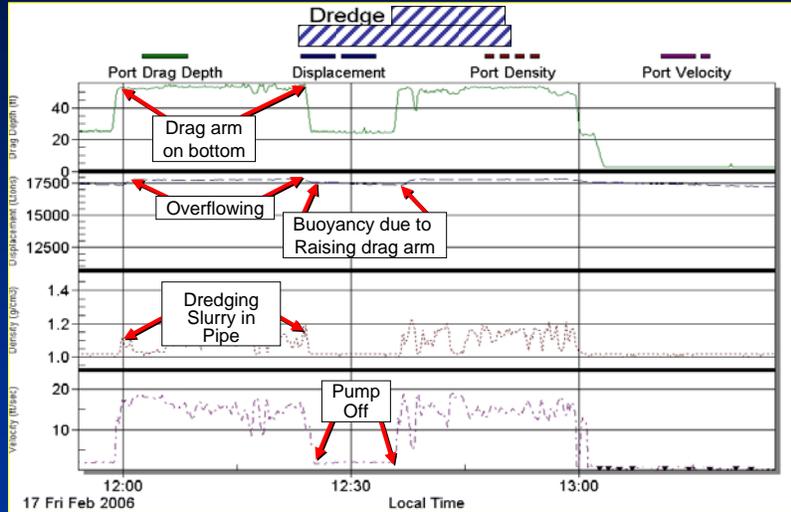
Silent Inspector System



Case Study

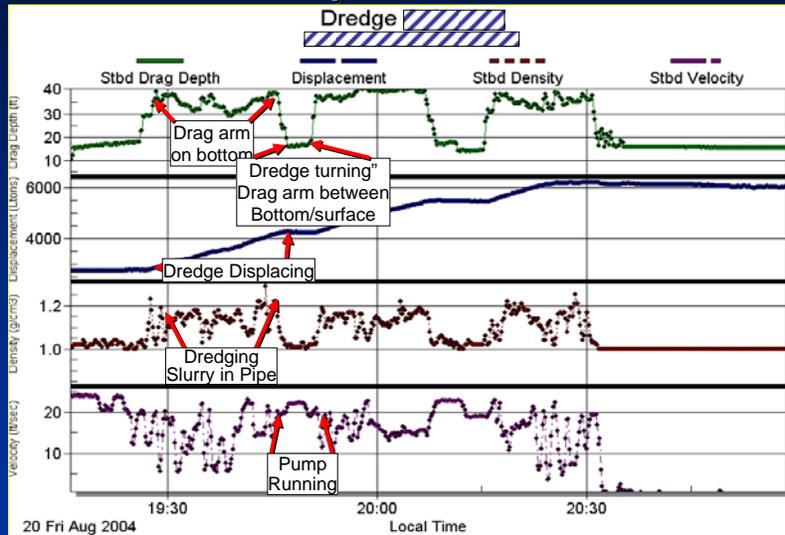


Example SI Plot



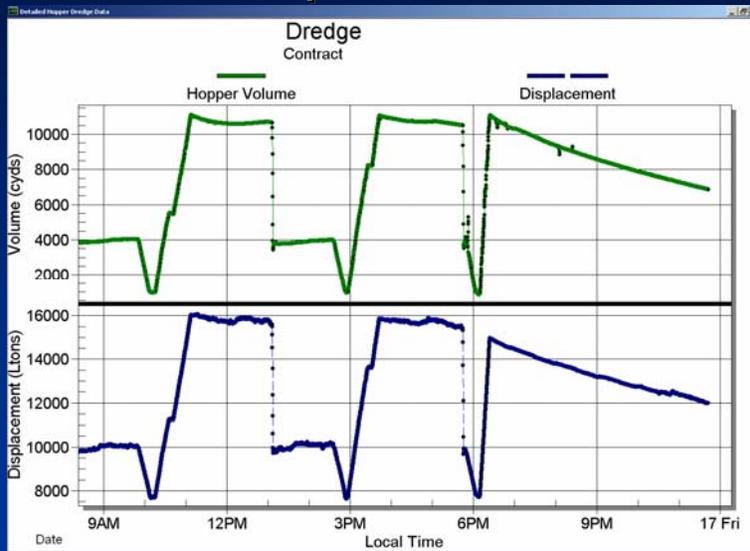
Safe Turtle Operations

Example SI Plot



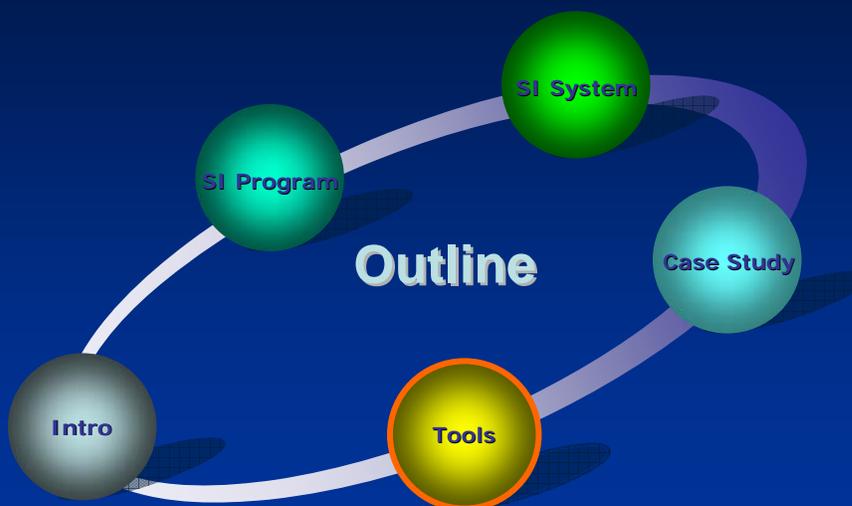
Unsafe Turtle Operations

Example SI Plot



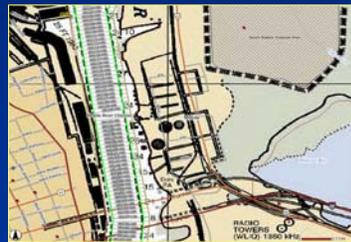
Water Leak Test

Tools

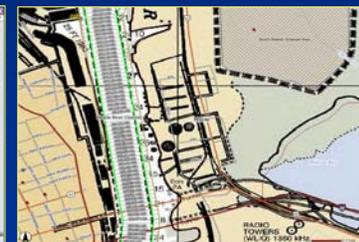


Upcoming SI Tools

- On-Board Dredge Viewer
- Ocean Disposal Monitoring Application
- Borrow & Disposal Site monitoring tools
- eDredge



On-Board Dredge Viewer



Ocean Disposal Monitoring

SI Ocean Disposal Monitoring

Availability: Online

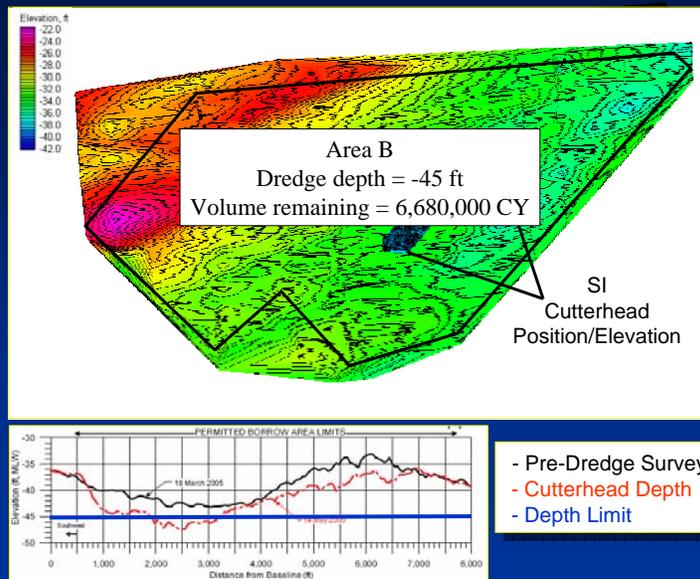
Silent Inspector
Disposal Process and Monitoring

Points Legend

- Site Closed Points
- Site Open Points Failing Outside Selected Disposal Site without Comments
- Site Open Points Failing Outside Selected Disposal Site with Comments
- Site Open Points Failing Inside Selected Disposal Site
- All points in Load are Selected

Event	Reference	Contract #	SPID	Contract	Event	Event Date	Event Time	Event Location	Event Description	Event Status
1	Ad Agreement	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000
2	Disposal	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000
3	Disposal	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000
4	Disposal	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000	0000000000

Borrow Area Monitoring



Dredging History

Historical Dredging Data

ID	Description	State	Project Key	Begin Date	Start Station	End Station
M0001		AL		1997-03-01	1800+00	1315+00
MB	Mobile Bay Channel	AL	M0003	1997-08-07	1670+00	2005+00
ML	Mobile Lower Bay Channel	AL	M0002	1997-08-07	1900+00	1950+00
MR	Mobile River Channel	AL	M0005	1997-08-07	1615+00	1675+00

Dredging Report - Historical Record - Mobile District Coastal GIS

Project Key: M0003 (Revised: 13-Mar-2005)

Project Data:

Name	Dist. Station Location	Original Area
Mobile Bay Channel	1670+00	1,617,000 sq. ft.
Mobile Bay Channel	1675+00	1,617,000 sq. ft.

Channel Data:

Channel Name	Channel Station	Channel Length	Channel Width
Mobile Bay Channel	1670+00	350+00	1,617,000 sq. ft.
Mobile Bay Channel	1675+00	350+00	1,617,000 sq. ft.

Dredging Statistics:

Year	Volume (cu. yd.)	Volume (cu. m)	Volume (cu. ft.)
1997	1,617,000	1,235,000	1,617,000
1998	1,617,000	1,235,000	1,617,000
1999	1,617,000	1,235,000	1,617,000
2000	1,617,000	1,235,000	1,617,000
2001	1,617,000	1,235,000	1,617,000
2002	1,617,000	1,235,000	1,617,000
2003	1,617,000	1,235,000	1,617,000
2004	1,617,000	1,235,000	1,617,000
2005	1,617,000	1,235,000	1,617,000

Core Borings/Sediment Data

View Reports

Select Report Type: Boring Logs
 Report ID: MSE00004_SS-01-92
 Report Sub Type: Pascagoula
 Report ID: MSE00004_SS-03-92
 Report ID: MSE00004_SS-04-92
 Available Documents: Boring Log, Laboratory

Boring Log

DEPTH (FT)	DESCRIPTION OF MATERIALS (COLOR/TEXTURE)
0.0	GREENISH GRAY SILTY CLAYEY SAND (CL-SI)
0.5	GREENISH GRAY SILTY SAND (SP-SI)
1.0	PAN PE. GR. SANDY SILTY SAND (SP-SI)
1.5	GREENISH GRAY
2.0	NTR. OF SHELL
2.5	PAN PE. GR. SANDY SILTY SAND (SP-SI)
3.0	GREENISH GRAY SILTY SAND (SP-SI)
3.5	CLAY WITH TR. OF SHELL
4.0	GREENISH GRAY PE. GR. SILTY SAND (SP-SI)
4.5	GREENISH GRAY PE. GR. SILTY SAND (SP-SI)
5.0	GREENISH GRAY CLAYEY SAND (CL-SI)
5.5	TR. OF SHELL WITH PE. GR. SAND
6.0	GREENISH GRAY SILTY SAND (SP-SI)
6.5	GREENISH GRAY SILTY SAND (SP-SI)
7.0	GREENISH GRAY SILTY SAND (SP-SI)
7.5	GREENISH GRAY SILTY SAND (SP-SI)
8.0	GREENISH GRAY SILTY SAND (SP-SI)
8.5	GREENISH GRAY SILTY SAND (SP-SI)
9.0	GREENISH GRAY SILTY SAND (SP-SI)
9.5	GREENISH GRAY SILTY SAND (SP-SI)
10.0	GREENISH GRAY SILTY SAND (SP-SI)
10.5	GREENISH GRAY SILTY SAND (SP-SI)
11.0	GREENISH GRAY SILTY SAND (SP-SI)
11.5	GREENISH GRAY SILTY SAND (SP-SI)
12.0	GREENISH GRAY SILTY SAND (SP-SI)
12.5	GREENISH GRAY SILTY SAND (SP-SI)
13.0	GREENISH GRAY SILTY SAND (SP-SI)
13.5	GREENISH GRAY SILTY SAND (SP-SI)
14.0	GREENISH GRAY SILTY SAND (SP-SI)
14.5	GREENISH GRAY SILTY SAND (SP-SI)
15.0	GREENISH GRAY SILTY SAND (SP-SI)
15.5	GREENISH GRAY SILTY SAND (SP-SI)
16.0	GREENISH GRAY SILTY SAND (SP-SI)
16.5	GREENISH GRAY SILTY SAND (SP-SI)
17.0	GREENISH GRAY SILTY SAND (SP-SI)
17.5	GREENISH GRAY SILTY SAND (SP-SI)
18.0	GREENISH GRAY SILTY SAND (SP-SI)
18.5	GREENISH GRAY SILTY SAND (SP-SI)
19.0	GREENISH GRAY SILTY SAND (SP-SI)
19.5	GREENISH GRAY SILTY SAND (SP-SI)
20.0	GREENISH GRAY SILTY SAND (SP-SI)

Graphs:

- Depth Profile: Shows depth (ft) vs. distance (ft) with a curve representing the sediment profile.
- Grain Size Distribution: Shows percentage of material passing through various sieve sizes.

Inland* Electronic Navigation Charts

The screenshot shows the website for 'electronic charting for navigation'. At the top, it features the U.S. Army Corps of Engineers logo and the text 'U.S. Army Corps of Engineers, Engineer Research and Development Center, Hydrographic Center'. The main heading is 'electronic charting for navigation'. Below this is a navigation menu with the following items: ABOUT, INLAND ELECTRONIC NAVIGATION CHARTS, COOPERATIVE CHARTING, MEETINGS AND PRESENTATIONS, INLAND CHART BOOKS, LINKS, and CONTACT US. The background of the website features a person in a red jacket using a laptop, a satellite, and a lighthouse. At the bottom of the screenshot, it reads: 'Accurate geospatial information for waterway maintenance and flood control activities, now being made available for safety of navigation applications.'

*Inland and Coastal Navigation



The image shows an aerial view of a coastal area with a 3D bathymetric overlay. The overlay is a colorful surface representing water depth, with colors ranging from red (shallow) to blue (deep). In the foreground, a large red barge is visible on the water. The text 'eCoastal Enterprise Survey Analysis & Management System SAMS' is overlaid on the right side of the image.



Thank You



Questions?

Eddie Culpepper
Silent Inspector Program Manager
eddie.culpepper@us.army.mil

251 690 3467

