

UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration NOAA Marine and Aviation Operations Marine Operations Center 439 W. York Street Norfolk, VA 23510-1114

MEMORANDUM FOR: Master Donn Pratt, NOAA Commanding Officer, NOAA Ship Gordon Gunter

FROM:

Captain Anne K. Lynch, NOAA Commanding Officer, NOAA Marine Operations Center-Atlantic

SUBJECT:

Project Instruction for GU-16-07 Pascagoula ODMDS Trend Assessment Survey

Attached is the final Project Instruction for GU-16-07, Pascagoula ODMDS Trend Assessment Survey, which is scheduled aboard NOAA Ship Gordon Gunter during the period of March 17 - 22, 2016. Of the 6 DAS scheduled for this project, 6 DAS are Program funded by EPA through an Interagency Agreement. This project is estimated to exhibit a Medium Operational Tempo. Acknowledge receipt of these instructions via e-mail to **OpsMgr.MOA@noaa.gov** at Marine Operations Center-Atlantic.

cc: Karen Mitchell



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



REGION 4

Science and Ecosystem Support Division 980 College Station Road Athens, GA 30605-2720

Project Instructions

Date Submitted: Platform: Project Number: Project Title:

January 15, 2016

NOAA Ship Gordon Gunter

GU-16-07

Pascagoula ODMDS Trend Assessment Survey SESD Project 16-0128

Project Dates:

March 16, 2016 - March 23, 2016

Prepared by:

Der Dated: 3/7/16 Mel Parsons

Chief Scientist U.S. ERA Region 4, Science and Ecosystem Support Division

Approved by:

Approved by:

Dated: 3/97/16

Chris McArthur Project Manager U.S. EPA Region 4, Water Protection Division

Approved by:

Dated: 3 ifer Derby

Chief, Marine Regulatory and Wetlands Enforcement Section U.S. EPA Region 4, Water Protection Division

Approved by:

3/13/2016 - Dated:

Capitain Anne K. Lynch, NOAA Commanding Officer Marine Operations Center - Atlantic

SESD Project 16-0128

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SURVEY PLAN-FINAL

I. Overview

A. Brief Summary and Project Period

The Pascagoula Ocean Dredged Material Disposal Site (ODMDS) is a large disposal site with an area of approximately 18.5 nmi². The site is located west of the Pascagoula Entrance Channel and due south of Horn Island. Historically, only the eastern portion nearest the channel has been utilized. However, there is a proposal to dispose of millions of cubic yards of dredged material from the expansion of the Gulfport turning basin into the western portion of the ODMDS. The ODMDS is used approximately every other year for disposal of maintenance material from the Civil Works Channel and Naval Station Pascagoula.

Pascagoula ODMDS Boundary Coordinates:	NW - 30'12.10/88'44.50
	NE - 30'11.70/88'33.40
	SE - 30'08.50/88'37.00
	SW - 30'08.30/88'41.90

B. Service Level Agreements

Of the 6 DAS scheduled for this project, 0 DAS are funded by an OMAO allocation, 0 DAS are funded by a Line Office Allocation, 6 DAS are Program Funded by EPA HQ through an Interagency Agreement. This project is estimated to exhibit a Medium Operational Tempo.

- C. Operating Area (Tables 3, 4 and Figures 1, 2)
- D. Summary of Objectives

There are three primary objectives to this survey: 1) Conduct a routine trend assessment at the Pascagoula ODMDS consistent with the requirement of each ODMDS's Site Management and Monitoring Plan (SMMP) and 40CFR228.13 by collecting and analyzing water, sediment and biota from 28 locations (14inside the ODMDS and 14 outside the ODMDS); 2) Conduct Sediment Profile Imaging (SPI) sampling at approximately 150 locations (to be determined); and 3) Conduct tows with a Manta type neuston net for microplastics near the inlets east and west of Horn Island and in the center of the ODMDS site.

E. Participating Institutions

US-EPA R4, R4 Public Health Service

Crew of NOAA Ship Gordon Gunter

Table 1: Science Personnel						
Name (Last,	Title	Date	Date	Gender	Affiliation	Nationality
First)		Aboard	Disembark			
Barlet, Nathan	Environmental	3/15/16	3/23/16	М	EPA	USA
	Engineer					
Blackburn, Steve	Life Scientist	3/15/16	3/23/16	М	EPA	USA
Boos, Jerry	Life Scientist	3/15/16	3/23/16	М	EPA	USA
Collins, Gary	Life Scientist	3/15/16	3/23/16	М	EPA	USA
Derby, Jennifer	Supervisory	3/15/16	3/23/16	F	EPA	USA
	Life Scientist					
Harper, Cecelia	Life Scientist	3/15/16	3/23/16	F	EPA	USA
Lehmann, Wade	Life Scientist	3/15/16	3/23/16	М	EPA	USA
McArthur, Chris	Project	3/15/16	3/23/16	М	EPA	USA
	Coordinator					
Mills, Calista	Life Scientist	3/15/16	3/23/16	F	EPA	USA
Parsons, Mel	Chief Scientist	3/15/16	3/23/16	М	EPA	USA
Pierce, Troy	Life Scientist	3/15/16	3/23/16	М	EPA	USA
Ruiz, John	Life Scientist	3/15/16	3/23/16	М	EPA	USA
Smith, Beth	Life Scientist	3/15/16	3/23/16	F	EPA	
Somerville, Eric	Life Scientist	3/15/16	3/23/16	М	EPA	USA
Weiss, Lena	Life Scientist	3/15/16	3/23/16	F	EPA	USA

F. Personnel/Science Party: name, title, gender, affiliation, and nationality

G. Administrative

1. Points of Contacts:

Survey Chief Scientist: Mel Parsons

Organization: U.S. EPA Region 4, Science and Ecosystem Support Division

Organization Address: 980 College Station Rd., Athens, GA 30605

Organization Telephone No.: (706) 355-8714; personal cell (706) 202-5092

FAX No.: (706) 562-8726

Email: <u>parsons.mel@epa.gov</u>

ODMDS Monitoring Coordinator: Christopher J. McArthur

Organization: U.S. EPA Region 4, Water Protection Division

Organization Address: 61 Forsyth, S.W., Atlanta, GA 30306

Organization Telephone No.: (404) 562-9391; personal cell (404) 909-0347

FAX No.: (404) 562-9343

Email: <u>mcarthur.Christopher@epa.gov</u>

SURVEY PLAN-FINAL

NOAA Ship Gordon Gunter

LTJG, Mike Doig Operations Officer Ship's Cell: 228-712-0717 Iridium: 808-659-5691 *Email:* ops.gordon.gunter@noaa.gov

- 2. Diplomatic Clearances: N/A
- 3. Licenses and Permits: N/A

II. Operations

The Chief Scientist is responsible for ensuring the scientific staff are trained in planned operations and are knowledgeable of project objectives and priorities. The Commanding Officer is responsible for ensuring all operations conform to the ship's accepted practices and procedures.

Logging of all sampling locations will be conducted utilizing HYPACK® Software on a laptop computer in either the dry lab or wet lab. In order to adequately log stations, it is necessary to have a live NMEA RS232 GPS feed and navigation monitor indicating the Ship's position in relation to sampling locations at the location where the laptop is set up.

Sediment and SPI sampling can be completed concurrently by alternating between day/night shifts or sequentially by conducting all sediment sampling first (Table 2), then switching to SPI operations. It is anticipated that Scientists will work in three 4 on/8 off shifts for sediment sampling and SPI, then switch to day ops for water quality and microplastic tows on the last couple of days of the survey.

Bathymetry data needs to be collected in around the site utilizing the Simrad EK60 multibeam echosounder. It would be preferable to conduct these transects at the end of the survey, depending upon the amount of time it would take to complete. We will need to coordinate with the science tech on the best approach to collecting this data.

Water quality sampling will be completed at three location on the last or next to last day of the survey in order to meet analytical holding time requirements prior to digestion and analysis by the laboratory. Manta tows for microplastics are planned for three locations with three tows at each location. The locations are the offshore side of the inlets on the east and west end of Horn Island and in the middle of the ODMDS. It's anticipated that these tows should take less than a day to complete and can be done in conjunction with the water quality sampling.

Following is a draft itinerary, subject to change.

A. Project Itinerary

Date/Time	Activity
3/15/16: 1700	Survey Team arrives at NOAA Ship Gordon Gunter in
	Pascagoula, MS
3/16/16: 8:00-17:00	Load Equipment/Welcome
	aboard/orientation/drills/staging and equipment setup
3/17/16: 1700 - 2400	On Station – sediment sampling
3/18/16: 0000 - 1700	Sediment sampling
3/18/16: 1800 - 2400	SPI
3/19/16: 0000 - 2400	SPI
3/20/16: 0000 - 0600	Offshore Run to Make Water
3/21/16: 0800 - 1800	SPI
3/22/16: 0800 - 1700	Microplastic sampling/WQ/Bathymetry/Pack
3/22/16: 1800 - 2400	Wrap up additional SPI/Bathymetry work
3/23/16: 0800 - 1700	Demobilize/Drive Home

Table 2: Project Schedule

B. Staging and Destaging

Staging will occur in Pascagoula, MS. The survey team will arrive on 3/15/16 at approximately 1700. Equipment loading, the welcome aboard/videos, ship orientation/drills and equipment staging will occur 3/16/16. Sampling will begin 3/17/16. The survey will demobilize the morning of 3/23/16 in Pascagoula.

C. Operations to be Conducted

Sediment and Benthic Sampling at the Pascagoula ODMDS

Twenty-eight locations will be sampled for sediment chemistry and benthic macroinvertebrates at the Pascagoula ODMDS. There will be fourteen locations within the ODMDS and fourteen outside the ODMDS (Table 3, Figure 1). Each sediment station will take approximately .75-1 hr. to complete. Sediment sampling will be conducted with a 0.04 double Young grabs. All sediment grabs will be supplied by R4 EPA.

Table 3: Pa	scagoula	ODMDS S	Sediment	Stations
Station	Lat	titude	Lon	gitude
PA01	30°	11.400'	-088°	33.900'
PA02	30°	11.500'	-088°	34.500
PA03	30°	10.700'	-088°	35.300
PA04	30°	10.000'	-088°	37.000
PA05	30°	11.024'	-088°	36.023
PA06	30°	11.700'	-088°	37.000
PA07	30°	11.466'	-088°	38.496
PA08	30°	10.300'	-088°	39.162
PA09	30°	9.144'	-088°	38.496
PA10	30°	9.144'	-088°	41.178
PA11	30°	10.300'	-088°	41.850
PA12	30°	11.466'	-088°	41.178
PA13	30°	11.600'	-088°	43.100
PA14	30°	10.300'	-088°	42.800
PA15	30°	12.500'	-088°	45.300
PA16	30°	13.000'	-088°	42.500
PA17	30°	13.000'	-088°	40.600
PA18	30°	12.800'	-088°	38.000
PA19	30°	12.500'	-088°	35.200
PA20	30°	11.908'	-088°	33.180
PA21	30°	10.872'	-088°	33.332
PA22	30°	9.800'	-088°	34.300
PA23	30°	8.500'	-088°	35.500
PA24	30°	7.500'	-088°	37.000
PA25	30°	7.351'	-088°	39.877
PA26	30°	7.500'	-088°	43.000
PA27	30°	9.000'	-088°	45.000
PA28	30°	11.138'	-088°	45.103

Water Sampling at the Pascagoula ODMDS

Water samples will be collected at three locations at the Pascagoula ODMDS on the last or next to last day of the survey (March 21 or 22, 2016) in order to meet sample holding times requirements prior to analysis. A top and bottom sample will be collected utilizing the Gunter's CTD/Rosette at stations PA03, PA08, PA14 (Figure 1). Approximately 3 liters of water will be needed for samples at each depth (Top/ Bottom). An additional 3 liters will be needed at one depth for QA purposes.



Figure 1: Pascagoula ODMDS Sampling Stations

Sediment Profile Imaging (SPI) Camera Operations

SPI imaging is a method for obtaining a profile of the sediment surface down to approximately 15 cm by using a sediment-profile camera system (Ocean Imaging Systems, North Falmouth, MA). The SPI camera consists of a wedge-shaped prism with a Plexiglas faceplate; light is provided by an internal strobe all mounted in a large frame (Figures 2 and 3). The camera frame measure 68' x 26' x 36" and the base is approximately 5' x 5'. The whole system weighs approximately 850 lbs.

Approximately 150 stations are anticipated for SPI camera operations (Table 4, Figure 4). It is anticipated that SPI data collection can be conducted at rate of approximately 3/hour. Images have to be manually downloaded from the camera, which should take approximately 15 minutes. Initially, this will be done after every station in order to verify that everything is working correctly. Thereafter, downloads will occur approximately every two hours of operation.





Figures 2 and 3: Sediment Profile Imaging (SPI) Camera

Method Description: The back of the wedge shaped prism has a mirror mounted at a 45-degree angle to reflect the profile of the sediment-water interface toward the camera, which is mounted horizontally on the top of the prism. The prism is filled with distilled water, through which the photographs are obtained. Because the object (sediment) to be photographed is directly against the clear window (faceplate) comprising the front of the prism, turbidity of the ambient seawater is not a limiting factor.

To collect SPI data, the survey vessel will be piloted to each target sampling location. Once within a pre-determined distance of the target location, the SPI camera will be deployed. For the present survey, 50 m will be established as the initial goal, but the EPA Chief Scientist in consultation with the Commanding Officer (CO) will have the flexibility to change this as necessary or desirable depending on the conditions actually encountered in the field.

9	Table 4: Pascagoula ODMDS SPI Stations													
Statio	L	atitude	Lor	ngitude	Statio	La	ititude	Lon	gitude	Station	La	atitude	Lon	gitude
PA01	30	11.4	-088	33.9	PA50	30	9.543	-088	40.06	PA99	30	11.32	-088	43.01
PA02	30	11.5	-088	34.5	PA51	30	9.542	-088	39.47	PA100	30	11.32	-088	42.42
PA03	30	10.7	-088	35.3	PA52	30	9.541	-088	38.88	PA101	30	11.32	-088	41.83
PA04	30	10	-088	37	PA53	301	9.541	-088	38.29	PA102	30	11.32	-088	40.65
PA05	30	11.02	-088	36.023	PA54	30	9.54	-088	37.7	PA103	30	11.32	-088	40.06
PA06	30	11.7	-088	37	PA55	30	9.539	-088	37.12	PA104	30	11.32	-088	39.47
PA07	30	11.47	-088	38.496	PA56	30	9.538	-088	36.53	PA105	30	11.32	-088	38.88
PA08	30	10.3	-088	39.162	PA57	301	9.537	-088	35.94	PA106	30	11.31	-088	37.7
PA09	30	9.144	-088	38.496	PA58	30	9.99	-088	42.71	PA107	30	11.31	-088	37.11
PA10	30	9.144	-088	41.178	PA59	30	9.989	-088	42.13	PA108	30	11.31	-088	36.52
PA11	30	10.3	-088	41.85	PA60	30.	9.988	-088	41.54	PA109	30	11.31	-088	35.93
PA12	30	11.47	-088	41.178	PA61	301	9.988	-088	40.95	PA110	30	11.31	-088	35.34
PA13	30	11.6	-088	43.1	PA62	30	9.987	-088	40.36	PA111	30	11.31	-088	34.75
PA14	30	10.3	-088	42.8	PA63	30	9.986	-088	39.77	PA112	30	11.31	-088	34.16
PA15	30	12.5	-088	45.3	PA64	30.	9.985	-088	39.18	PA113	30	11.76	-088	43.89
PA16	30	13	-088	42.5	PA65	301	9.985	-088	38.59	PA114	30	11.76	-088	42.71
PA17	30	13	-088	40.6	PA66	30.	9.984	-088	38	PA115	30	11.76	-088	42.12
PA18	30	12.8	-088	38	PA67	30	9.983	-088	37.41	PA116	30	11.76	-088	41.53
PA19	30	12.5	-088	35.2	PA68	301	9.981	-088	36.23	PA117	30	11.76	-088	40.94
PA20	30	11.91	-088	33.18	PA69	301	9.98	-088	35.64	PA118	30	11.76	-088	40.35
PA21	30	10.87	-088	33.332	PA70	30.	10.43	-088	42.42	PA119	30	11.76	-088	39.76
PA22	30	9.8	-088	34.3	PA71	30	10.43	-088	41.24	PA120	30	11.76	-088	39.17
PA23	30	8.5	-088	35.5	PA72	30.	10.43	-088	40.65	PA121	30	7.356	-088	42.19
PA24	30	7.5	-088	37	PA73	301	10.43	-088	40.06	PA122	30	7.355	-088	40.94
PA25	30	7.351	-088	39.877	PA74	30.	10.43	-088	39.47	PA123	30	7.352	-088	38.43
PA26	30.	7.5	-088	43	PA75	30.	10.43	-088	38.88	PA124	30.	8.301	-088	44.07
PA27	30	9	-088	45	PA76	30.	10.43	-088	38.29	PA125	30	8.3	-088	42.82
PA28	30	11.14	-088	45.103	PA77	30.	10.43	-088	37.7	PA126	30.	8.298	-088	41.56
PA29	30.	8.658	-088	41.832	PA78	30.	10.43	-088	37.11	PA127	30.	8.297	-088	40.31
PA30	30.	8.657	-088	41.243	PA79	30.	10.42	-088	36.52	PA128	30.	8.295	-088	39.06
PA31	30.	8.657	-088	40.654	PA80	30.	10.42	-088	35,93	PA129	30	8.294	-088	37.8
PA32	30.	8.656	-088	40.064	PA81	30.	10.42	-088	35.34	PA130	30.	8.291	-088	36.55
PA33	30.	8.655	-088	39.475	PA82	30.	10.88	-088	43.3	PA131	30.	9.243	-088	43.44
PA34	30	8.654	-088	38.886	PA83	30.	10.88	-088	42.71	PA132	30.	9.233	-088	35.92
PA35	30	8.653	-088	38.296	PA84	30.	10.88	-088	42.12	PA133	30	9.231	-088	34.67
PA36	30	8.652	-088	37.707	PA85	301	10.88	-088	41.53	PA134	30	10.19	-088	45.32
PA37	30.	8.652	-088	37.117	PA86	30.	10.87	-088	40.95	PA135	30.	10.19	-088	44.07
PA38	30.	9.102	-088	42.127	PA87	30.	10.87	-088	40.36	PA136	30.	12.07	-088	44.06
PA39	30.	9.101	-088	41.537	PA88	30.	10.87	-088	39.77	PA137	30	12.07	-088	42.81
PA40	30	9.1	-088	40.358	PA89	30	10.87	-088	39.18	PA138	30	12.07	-088	41.56
PA41	30	9.099	-088	39.769	PA90	30	10.87	-088	38.59	PA139	30	12.07	-088	40.3
PA42	30	9.098	-088	39.179	PA91	30	10.87	-088	38	PA140	30	12.07	-088	39.05
PA43	30	9.097	-088	38.001	PA92	30	10.87	-088	37.41	PA141	30	12.07	-088	37.8
PA44	30	9.096	-088	37.411	PA93	30	10.87	-088	36.82	PA142	301	12.06	-088	36.54
PA45	30	3.035	-088	35.822	PA94	30	10.87	-088	35.23	PA143	30	12.06	-088	35.29
PA46	30	3.546	-088	42.421	PA95	30	10.87	-088	35.64	PA144	30	12.06	-088	34.04
PA47	30	3.545	-088	41.031	PA36	30	10.87	-088	35,05	PA145	201	13.02	-088	44.03
PA40	30	9 544	-000	41.242	PA99	30	11 32	-000	43.6	PA140	301	13.01	-000	39.68
1 440	100	0.044	000	140.002	I HOU	00	11.94	000	40.0	1.1111	100	10.01	000	00.00



Figure 4: Pascagoula Sediment Profile Imaging (SPI) Station

D. Diving

Diving is not anticipated for this survey.

E. Applicable Restrictions

Conditions which preclude normal operations: High sea state presenting a danger to crew and equipment during deployment/retrieval.

III. Equipment

A. Equipment and Capabilities provided by the ship (itemized)

Equipment	Activity
Main Deck Crane	Loading/Unloading Equipment
A-Frame or J-Frame	Sediment Grabs/CTD/SPI Camera
Winch	Sediment Grabs/CTD/SPI Camera
Shallow water multi-beam echo	Bathymetry at the Pascagoula ODMD
sounder: Simrad EK-60 System	
Seabird CTD/Rosette	Water Sampling/Profiling ODMD Sites
Refrigerator Space	120 Sediment Samples/35Water Samples
NMEA RS232 GPS feed and	Position logging
remote nav monitor in the wet/dry	
lab	
Salt water feed on deck	Macroinvertebrate sieving operations.
w/standard water hose connection	

B. Equipment and Capabilities provided by the scientists (itemized)

Equipment	Activity
HYPACK data acquisition and	Sampling Location Logging
navigation software	
Sediment Grabs	Sediment Sampling ODMD Sites
Sample Containers	Sediment and Water Sampling
SPI Camera	SPI Operations
Manta Neuston Net	Microplastics sampling

IV. Hazardous Materials

A. Policy and Compliance

The Chief Scientist is responsible for complying with FEC 07 Hazardous Materials and Hazardous Waste Management Requirements for Visiting Scientific Parties (or the OMAO procedure that supersedes it). By Federal regulations and NOAA Marine and Aviation Operations policy, the ship may not sail without a complete inventory of all hazardous materials by name and the anticipated quantity brought aboard, MSDS and appropriate neutralizing agents, buffers, or absorbents in amounts adequate to address spills of a size equal to the amount of chemical brought aboard, and a chemical hygiene plan. Documentation regarding those requirements will be provided by the Chief of Operations, Marine Operations Center, upon request.

Per FEC 07, the scientific party will include with their project instructions and provide to the CO of the respective ship 60 to 90 days before departure:

- A list of hazardous materials by name and anticipated quantity
- Include a chemical spill plan the addresses all of the chemicals the program is bringing aboard. This shall include:
 - Procedures on how the spilled chemicals will be contained and cleaned up.
 - A complete inventory (including volumes/amounts) of the chemical spill supplies and equipment brought aboard by the program. This must be sufficient to clean and neutralize <u>all</u> of the chemicals brought aboard by the program.
 - A list of the trained personnel that will be accompanying the project and the training they've completed.

Upon embarkation and prior to loading hazardous materials aboard the vessel, the scientific party will provide to the CO or their designee:

- An inventory list showing actual amount of hazardous material brought aboard
- An MSDS for each material
- Confirmation that neutralizing agents and spill equipment were brought aboard sufficient to contain and cleanup all of the hazardous material brought aboard by the program.

• Confirmation that chemical safety and spill response procedures were brought aboard

Upon departure from the ship, scientific parties will provide the CO or their designee an inventory of hazardous material indicating all materials have been used or removed from the vessel. The CO's designee will maintain a log to track scientific party hazardous materials. MSDS will be made available to the ship's complement, in compliance with Hazard Communication Laws.

Scientific parties are expected to manage and respond to spills of scientific hazardous materials. Overboard discharge of scientific chemicals is not permitted during projects aboard NOAA ships.

B. Inventory

Chemical	Quantity	Use
NOTOXHisto	2 x 5 gallons	Macroinvertebrate tissue preservative
Nitric acid – 20%	36 x 5 ml	Water sample metals preservative

C. Chemical safety and spill response procedures

20% nitric acid used for preservative during the survey is dispensed in individual 5ml vials, therefore, it is anticipated that any spill that might occur would be small. Preservation will occur in the wet lab with absorbent mats beneath samples in case there are spills. Should an acid spill occur, the absorbent mat would be stored in a disposal bucket and taken back to the EPA laboratory for disposal. The area beneath the mat would be rinsed and cleaned with fresh water.

NOTOXHisto is a non-toxic tissue preservative. It is stored in cardboard reinforced plastic cubecontainers. The preservative will be transferred to buckets containing sample for preservation outside on the quarterdeck area. Absorbent mats will be used under and around containers during transfer. Should a NOTOXHisto spill occur, absorbent mats would be used to thoroughly clean and dry the area surrounding the spill. Absorbent mats would then be stored in a disposal bucket and taken back to the EPA laboratory for disposal.

Material Safety Data Sheets (MSDS) are attached in Appendix B at the end of this document.

D. Radioactive Isotopes :No Radio Isotopes are planned for this project.

V. Additional Projects

A. Supplementary ("Piggyback") Projects: No supplementary projects are planned for this project.

B. NOAA Fleet Ancillary Projects: There are no ancillary projects planned for this project.

VI. Disposition of Data and Reports

A. Data Responsibilities

All samples and data collected are the responsibility of the Chief Scientist. An operational survey report will be developed and provided to EPA HQ within 21 days of survey completion. A Site Monitoring and Assessment Report for each ODMDS will be written and provided to EPA HQ by 3/1/17. Multibeam bathymetry data will be collected and archived by NOAA personnel in accordance with NOAA policies. Copies of the data will be provided to EPA at the conclusion of the survey.

Disposition of data gathered aboard NOAA ships will conform to NAO 216-101 *Ocean Data Acquisitions* and NAO 212-15 *Management of Environmental Data and Information*. To guide the implementation of these NAOs, NOAA's Environmental Data Management Committee (EDMC) provides the *NOAA Data Documentation Procedural Directive* (data documentation) and *NOAA Data Management Planning Procedural Directive* (preparation of Data Management Plans). OMAO is developing procedures and allocating resources to manage OMAO data and Programs are encouraged to do the same for their Project data.

- A. Data Classifications: Under Development
 - a. OMAO Data
 - b. Program Data
- B. Responsibilities: Under Development
- VII. Meeting, Vessel Familiarization, and Project Evaluations
 - A. <u>Pre-Project Meeting</u>: The Chief Scientist and Commanding Officer will conduct a meeting of pertinent members of the scientific party and ship's crew to discuss required equipment, planned operations, concerns, and establish mitigation strategies for all concerns. This meeting shall be conducted before the beginning of the project with sufficient time to allow for preparation of the ship and project personnel. The ship's Operations Officer usually is delegated to assist the Chief Scientist in arranging this meeting.
 - B. <u>Vessel Familiarization Meeting</u>: The Commanding Officer is responsible for ensuring scientific personnel are familiarized with applicable sections of the standing orders and vessel protocols, e.g., meals, watches, etiquette, drills, etc. A vessel familiarization meeting shall be conducted in the first 24 hours of the project's start and is normally presented by the ship's Operations Officer.
 - C. <u>Post-Project Meeting</u>: The Commanding Officer is responsible for conducted a meeting no earlier than 24 hrs before or 7 days after the completion of a project to discuss the overall success and short comings of the project. Concerns regarding safety, efficiency, and suggestions for future improvements shall be discussed and mitigations for future

projects will be documented for future use. This meeting shall be attended by the ship's officers, applicable crew, the Chief Scientist, and members of the scientific party and is normally arranged by the Operations Officer and Chief Scientist.

D. Project Evaluation Report

Within seven days of the completion of the project, a Customer Satisfaction Survey is to be completed by the Chief Scientist. The form is available at http://www.omao.noaa.gov/fleeteval.html and provides a "Submit" button at the end of the form. Submitted form data is deposited into a spreadsheet used by OMAO management to analyze the information. Though the complete form is not shared with the ships, specific concerns and praises are followed up on while not divulging the identity of the evaluator.

VIII. Miscellaneous

A. Meals and Berthing

The ship will provide meals for the scientists listed above. Meals will be served 3 times daily beginning one hour before scheduled departure, extending throughout the project, and ending two hours after the termination of the project. Since the watch schedule is split between day and night, the night watch may often miss daytime meals and will require adequate food and beverages (for example a variety of sandwich items, cheeses, fruit, milk, juices) during what are not typically meal hours. Special dietary requirements for scientific participants will be made available to the ship's command at least seven days prior to the survey. Three scientists will require vegetarian meals.

Berthing requirements, including number and gender of the scientific party, will be provided to the ship by the Chief Scientist. The Chief Scientist and Commanding Officer will work together on a detailed berthing plan to accommodate the gender mix of the scientific party taking into consideration the current make-up of the ship's complement. The Chief Scientist is responsible for ensuring the scientific berthing spaces are left in the condition in which they were received; for stripping bedding and linen return; and for the return of any room keys which were issued. The Chief Scientist is also responsible for the cleanliness of the laboratory spaces and the storage areas utilized by the scientific party, both during the project and at its conclusion prior to departing the ship.

All NOAA scientists will have proper travel orders when assigned to any NOAA ship. The Chief Scientist will ensure that all non NOAA or non-Federal scientists aboard also have proper orders. It is the responsibility of the Chief Scientist to ensure that the entire scientific party has a mechanism in place to provide lodging and food and to be reimbursed for these costs in the event that the ship becomes uninhabitable and/or the galley is closed during any part of the scheduled project.

All persons boarding NOAA vessels give implied consent to comply with all safety and security policies and regulations which are administered by the Commanding Officer. All spaces and equipment on the vessel are subject to inspection or search at any time. All personnel must

comply with OMAO's Drug and Alcohol Policy dated May 7, 1999 which forbids the possession and/or use of illegal drugs and alcohol aboard NOAA Vessels.

B. Medical Forms and Emergency Contacts

The NOAA Health Services Questionnaire (NHSQ, NF 57-10-01 (3-14)) must be completed in advance by each participating scientist. The NHSQ can be obtained from the Chief Scientist or the NOAA website http://www.corporateservices.noaa.gov/noaaforms/eforms/nf57-10-01.pdf.

All NHSQs submitted after March 1, 2014 must be accompanied by <u>NOAA Form (NF) 57-10-02</u> - Tuberculosis Screening Document in compliance with <u>OMAO Policy 1008</u> (Tuberculosis Protection Program).

The completed forms should be sent to the Regional Director of Health Services at the applicable Marine Operations Center. The NHSQ and Tuberculosis Screening Document should reach the Health Services Office no later than 4 weeks prior to the start of the project to allow time for the participant to obtain and submit additional information should health services require it, before clearance to sail can be granted. Please contact MOC Health Services with any questions regarding eligibility or completion of either form. Ensure to fully complete each form and indicate the ship or ships the participant will be sailing on. The participant will receive an email notice when medically cleared to sail if a legible email address is provided on the NHSQ.

The participant can mail, fax, or email the forms to the contact information below. Participants should take precautions to protect their Personally Identifiable Information (PII) and medical information and ensure all correspondence adheres to DOC guidance (http://ocio.os.doc.gov/ITPolicyandPrograms/IT_Privacy/PROD01_008240).

The only secure email process approved by NOAA is <u>Accellion Secure File Transfer</u> which requires the sender to setup an account. <u>Accellion's Web Users Guide</u> is a valuable aid in using this service, however to reduce cost the DOC contract doesn't provide for automatically issuing full functioning accounts. To receive access to a "Send Tab", after your Accellion account has been established send an email from the associated email account to <u>accellionAlerts@doc.gov</u> requesting access to the "Send Tab" function. They will notify you via email usually within 1 business day of your approval. The 'Send Tab" function will be accessible for 30 days.

Contact information:

Regional Director of Health Services Marine Operations Center – Atlantic 439 W. York Street Norfolk, VA 23510 Telephone 757-441-6320 Fax 757-441-3760 E-mail <u>MOA.Health.Services@noaa.gov</u>

Prior to departure, the Chief Scientist must provide an electronic listing of emergency contacts to the Executive Officer for all members of the scientific party, with the following information: contact name, address, relationship to member, and telephone number.

C. Shipboard Safety

Hard hats are required when working with suspended loads. Work vests are required when working near open railings and during small boat launch and recovery operations. Hard hats and work vests will be provided by the ship when required.

Wearing open-toed footwear or shoes that do not completely enclose the foot (such as sandals or clogs) outside of private berthing areas is not permitted. At the discretion of the ship CO, safety shoes (i.e. steel or composite toe protection) may be required to participate in any work dealing with suspended loads, including CTD deployment and recovery. The ship does not provide safety-toed shoes/boots. The ship's Operations Officer should be consulted by the Chief Scientist to ensure members of the scientific party report aboard with the proper attire.

D. Communications

A progress report on operations prepared by the Chief Scientist may be relayed to the program office. Sometimes it is necessary for the Chief Scientist to communicate with another vessel, aircraft, or shore facility. Through various means of communications, the ship can usually accommodate the Chief Scientist. Special radio voice communications requirements should be listed in the project instructions. The ship's primary means of communication with the Marine Operations Center is via e-mail and the Very Small Aperture Terminal (VSAT) link. Standard VSAT bandwidth at 128kbs is shared by all vessels staff and the science team at no charge. Increased bandwidth in 30 day increments is available on the VSAT systems at increased cost to the scientific party. If increased bandwidth is being considered, program accounting is required it must be arranged at least 30 days in advance.

E. IT Security

Any computer that will be hooked into the ship's network must comply with the *NMAO Fleet IT Security Policy* 1.1 (November 4, 2005) prior to establishing a direct connection to the NOAA WAN. Requirements include, but are not limited to:

(1) Installation of the latest virus definition (.DAT) file on all systems and performance of a virus scan on each system.

- (2) Installation of the latest critical operating system security patches.
- (3) No external public Internet Service Provider (ISP) connections.

Completion of these requirements prior to boarding the ship is required and applies to any operating system.

Non-NOAA personnel using the ship's computers or connecting their own computers to the ship's network must complete NOAA's IT Security Awareness Course within 3 days of embarking.

F. Foreign National Guests Access to OMAO Facilities and Platforms

Foreign National access to the NOAA Ship or Federal Facilities are not required for this project.

Appendix A Material Safety Data Sheets Page 1 of 2

Reviewed October 2011

Section 1. Identity

Product Name: NOTOXhisto

Cat#	Description		SDL Prod II
614-01	NOTOXhisto	1 gation/pkg	00344
614-05	NOTOX histo 5 gallon	5 gallon/pkg	00345
614-15	NOTOX histo 15 ML Containers	50 viats/pkg	00347
614-30	NOTOX histo 30 ML Containers	50 viats/pkg	00351
614-60	NOTOX histo 60 ML Containers	50 vials/pkg	00353
614-90	NOTOX histo 90 ML Containers	50 vials/pkg	00354

Manufacturer/Supplier:	Scientific Device Laboratory, 411 Jarvis Avenue, Des Plaines, IL 60018 Phone 847-803-9495
Emergency Information:	In case of a chemical emergency, spill, fire, exposure or accident contact Scientific Device Laboratory (847) 803-9495 or CHEMTREC 1-800-424-9300 or 703-527-3887

Section 2. Hazardous Ingredients/Identity Information

Components: Aqueous alcoholic solution with other hydroxlated compounds. (90% non aromatic alcohols) Product consists of an aqueous solution of stabilizing chemicals.

Section 3. Physical/Chemical Characteristics

Boiling Point: 165°F Flash Point 118°F Specific Gravity: 1.044 Vapor Pressure (mmHg): N/A Vapor Density (AIR=1): N/A Melting Point: N/A Evaporation Rate: vd >1 Solubility in H₂O: souble Appearance: clear Odor: none Consists of: aqueous solution of stabilizing chemicals

Section 4. Fire and Explosion Hazard Data

Flash point: 118°F Flammable limits: unknown LEL/UEL: N/A Extinguishing medium: water Special Fire Fighting Procedures: none found Unusual Fire and Explosion Hazards: none known

Section 5. Reactivity Data

Stability: stable Condition to avoid: swallowing Reagent incompatibility: not known Hazardous decomposition or By-products: none known

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Hazardous polymerization: does not occur Conditions to avoid: freezing or mixing with organic solvents

Section 6. Health Hazard Data

Routes of entry: ingestion: unknown Inhalation unknown Skin: unknown Ingestion: avoid ingestion Health Hazards: none known in final concentration Carcinogenicity: none known Signs and symptoms of exposure: unknown Medical conditions aggravated by exposure: unknown Emergency First Aid Procedures: skin contact: wash hands or area thoroughly for 15 minutes with water and soap. Respiratory: Wash with water

Section 7. Precautions for Safe Handling and Use

Steps to be taken if material is spilled: clean with cloth - Discard in flame retardant receptacle. Waste Disposal Method: no special treatment, can be discarded down drain barring any local restrictions for alcohol Precautions to be taken in Handling and Storage: store at room temperature Other Precautions: none

Section 8. Control Measures

Respiratory Protection: mask preferred Ventilation: respiratory mask suggested Protective Gloves: chemical resistant gloves Protective Clothing: Chemical resistant Work/Hygiene Practices: good general microbiology techniques Eye Protection: chemical safety goggles

Section 9. Transportation

UN 1987 Alcohol N.O.S. (Aqueous Ethanol Solutions) Class 3 Group III

Scientific Device Laboratory (SDL) will not be responsible for damages of any kind resulting from the use or reliance upon such information. No representations, or warranties either express or implied of merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to the information set forth herein or to the product to which the information refers. All statements made hereinto are provided in good faith and is believed to be correct as of the date hereof. However SDL makes no representation to the comprehensiveness of such information. It is expected that individuals receiving the information will exercise their independent judgment in determining it appropriate use.

CR NUMBER	REVISION
0908-001	00
0211-001	01
0511-001	02
0911-007	03

END OF SURVEY PLAN