



Commanding Officer
United States Coast Guard
National Strike Force Coordination Center

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16465
JAN 30 2017

Marine Spill Response Corporation
Attn: Don Toenshoff
220 Spring St., Ste 500
Herndon, VA 20170

Dear Mr. Toenshoff,

Your application for your Nonfloating Oil (NFO) classification letter has been reviewed and approved as outlined in the Coast Guard Oil Spill Removal Organization (OSRO) Classification Guidelines dated March 2016. Your OSRO classification number is 22; please use this number in all future correspondence to this office. If there are changes in the core equipment described in your application that would diminish NFO response capability in any port for which MSRC holds this classification, you shall report it to the NSFCC. Your company maintains several classifications which are listed in enclosure (1).

You are responsible for informing both this office and your clients of any changes to your status. Technical limitations currently prevent the additional resources listed in your application from being entered into the Response Resource Inventory (RRI) database. However, when queried, MSRC will be listed as NFO capable in the COTP zones and Alternative Classification Cities approved. In the near future, the RRI database will be amended to accept the new NFO core response equipment. At that time, my staff will contact you to ensure your NFO resources are recorded. The database can be accessed at <https://cgri.uscg.mil>. Your classifications will be listed and maintained in the OSRO Classification Matrix, which is available for review at <https://cgri.uscg.mil/rriadmin/reports/webclassificationreport.aspx>.

If you have any questions or would like more information regarding your classifications, please contact the NSFCC using the contact information found in enclosure (2).

Thank you for your participation in the OSRO Classification program.

Sincerely,

W. Carter
Captain, US Coast Guard

Enclosures: (1) MSRC RRI classification totals
(2) NSFCC Contact List

Copy: COMDT (CG-MER)

- **USCG Issues first NFO OSRO Classification to MSRC on January 30, 2017**



NFO Classification Process

- **Formation of Workgroup**
 - **Steve Ricks, Harry Fujii and Mike Sutcliffe draft development based on OSRO Guidelines**
- **Analysis of resource capability**
 - **MSRC Contracts Administrators worked with MSRC *STARs* contractors on identification of NFO resources**
- **Drafting process**
 - **Narrative**
 - **Port specific resources**
 - **Relationships**
- **USCG submittal**
 - **August 8, 2016 Submittal**
 - **November 1, 2016 deadline**
 - **January 30, 2017 approval**



ATTACHMENT 1 INVENTORY

NFO Application Resource Inventory Submittal

Company Name	XXXXX Environmental	OSRO #	XXX
Street	1044 XXX	Contract #	XXX
City	Charleston	LOI (Yes/No)	No
State	South Carolina	EPA Region	4
Zip Code	29405	Organization Type	OSRO
POC	XXXXXX	Latitude	XX° XX' XX.X" N
POC e-mail	XXXX@msrc.org	Longitude	XX° XX' XX.X" W
Official Phone	XXX-XXX-XXX		
Bus Phone	XXX-XXX-XXX		
Fax	XXX-XXX-XXX		

Detection Resource Type:	Sonar System	Underwater Cameras/Video	Diver Observation	Towed/Stationary Sorbents	Laser Fluorosensors	Aerial Observer	Bottom Sampling	In-Situ Analysis
Provide Service (YES/NO)	YES	YES	YES	YES	NO	YES	YES	NO
Description of Contractor Equipment	*ROV video ray pro *Odom CVM echotrack *Hemisphere vector *Klein hydroscan *Hypack	* ROV underwater cameras - 15 megapixels Resolution - Sediment Profile Imaging - Acoustic Cameras	*ADCI certified divers *Contaminated diving *mixed-gas Diving *Saturation diving	* Snare chain * Sorbent boom * Sorbent pads		* Shoreline cleanup assessment techniques *Helicopter/Plane Observer	*Manual sampling *ROV sampling	
Total Qty (If Applicable)	4	2	12	As Needed		3	Various	

Recovery Resource Type:	Suction Dredge Clam Shell	Diver Directed Pump/Vacuum	Mechanical Removal	Sorbent / V - SORs	Trawls & Nets	Manual Removal	Agitation Refloat
Provide Service (YES/NO)	YES	YES	YES	NO	NO	YES	YES
Description of Contractor Equipment	*Suction dredging *Sucontracted dredging abilities	*Vacuum trucks *Vacuum trailers *6" Godwin pumps *4" Godwin pumps *Diaphragm pumps	*Excavators *Submersible pumps	*Snare *Chain *Sorbent boom *Sorbent pads		*Hand tools *Waders *ADCI certified divers	
Total Qty (If Applicable)	1	Various	3	As Needed		70	5

Containment Resource Type:	Nets Curtains	Physical Barriers	Bottom Boom	Sheet Piling	Bubble Curtain	Sorbent Cages
Provide Service (YES/NO)	YES	YES	YES	YES	YES	YES
Description of Contractor Equipment						
Total Qty (If Applicable)	As Needed	As Needed	As Needed	As Needed	As Needed	As Needed

Logistic Support:	Support Vessels	ROV	Temporary Storage	Logistics Support	Trained Personnel
Provide Service (YES/NO)	YES	YES	YES	YES	YES
Description of Contractor Equipment	* Response vessels * Support barges * Support vessels * Small tug and push boats *Jon boats	*Comanche ROV *Super Mohawk ROV *Saab Seaeeye ROVs *VideoRay ROV	*21k Fractanks *10K Fractanks *18K Fractanks *Bladders *Vacuum trucks	*Cranes *Forklifts *Tractor/trailers *Bobcats *Support barges	
Total Qty (If Applicable)	42	7	723,448 BBLs	10	70



MSRC Response Capability

- **MSRC dedicated Oil Spill Response Vessels (OSRVs) and Oil Spill Response Barges (OSRBs)**
 - Locations are included in MSRC NFO resource inventory
 - Co-located at these sites are other NFO response resources including submersible pumps, sorbents, and aerial observers
- **MSRC aerial observation aircraft**
 - MSRC maintains contracts with aircraft operators to allow for timely response and aerial surveillance.
 - Aircraft of Opportunity (AOO) as well as dedicated aircraft
 - ✓ Multiple service providers allows for redundancy and flexibility in platforms
- **Trained observers**
 - MSRC personnel
 - Aircraft pilots in some circumstances
 - Other relationships

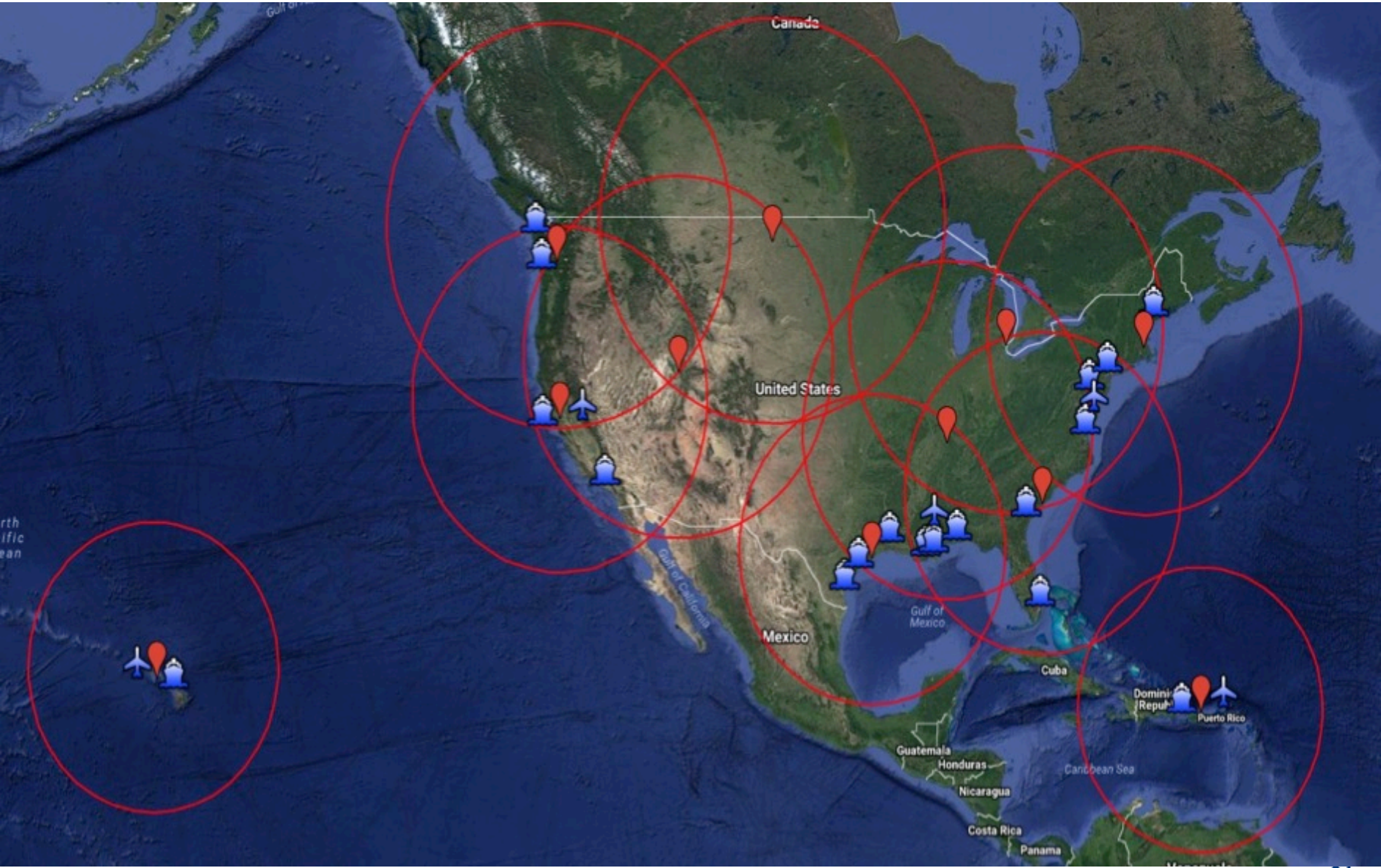


Contracted Response Resources

- **NFO Response Resource Contractors**
 - **Absorbent Safety Solutions**
 - **Clean Harbors**
 - **Dynamic Aviation**
 - **EnviroCare Inc.**
 - **Global Diving & Salvage**
 - **Marine Pollution Control**
 - **Moran Environmental**
 - **Penco**
 - **Resource Mapping**
 - **T&T Salvage**
- **Above companies supplement MSRC's dedicated resources in support of planning time frames and requirements**



Coverage Map as submitted in OSRO Application



Detection Resources

- **Observers are activated and types are dependent upon location, environment, and water depth**
 - **Aerial**
 - **Sonar systems**
 - **Diver observation**
 - **Underwater cameras/video**
 - **Towed/Stationary Sorbents**
 - **Bottom sampling**
 - **Water sampling in-situ analysis**

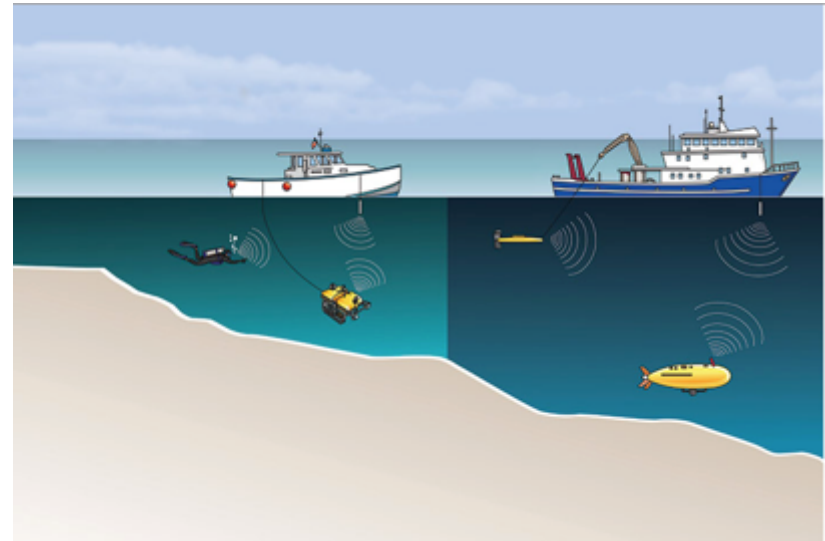


Table 3-2—Matrix to Evaluate Technologies For Detection, Delineation, and Characterization of Sunken Oil

	Sonar Systems	Camera/ Video	Acoustic Camera	Diver Observations	Towed Sorbents	Stationary Sorbents	Visual Observations	Bottom Sampling	Manual Shovel Pits	Laser Fluorosensor	Water Column Sampling
Water Depth (ft)	10 to 1000	10 to 1000	10 to 1000	5 to 190	5 to 100	5 to 100	0 to 30	0 to 1000	0 to 5	10 to 100	5 to >1000
Water Visibility											
— >30 ft	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	RED	GREEN	GREEN
— 5 to 30 ft	GREEN	YELLOW	GREEN	GREEN	GREEN	GREEN	YELLOW	GREEN	RED	YELLOW	GREEN
— <5 ft	GREEN	RED	GREEN	YELLOW	GREEN	GREEN	RED	GREEN	GREEN	RED	YELLOW
Availability	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	YELLOW	YELLOW
Substrate Type											
— Sand	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN
— Silty sand	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN
— Mud	GREEN	GREEN	GREEN	GREEN	GREEN	GREEN	YELLOW	GREEN	YELLOW	GREEN	GREEN
Bottom Obstruction	GREEN	GREEN	GREEN	YELLOW	YELLOW	GREEN	GREEN	GREEN	RED	GREEN	GREEN
Oil Patch Size											
— <0.1 ft ²	RED	GREEN	YELLOW	GREEN	YELLOW	YELLOW	YELLOW	RED	YELLOW	GREEN	YELLOW
— 0.1 to 1 ft ²	RED	GREEN	GREEN	GREEN	YELLOW	YELLOW	GREEN	RED	YELLOW	GREEN	YELLOW
— >1 to 10 ft ²	YELLOW	GREEN	GREEN	GREEN	GREEN	YELLOW	GREEN	GREEN	GREEN	GREEN	YELLOW
— >10 ft ²	GREEN	GREEN	GREEN	GREEN	GREEN	YELLOW	GREEN	GREEN	GREEN	GREEN	YELLOW
Oil Thickness	YELLOW	YELLOW	RED	GREEN	YELLOW	RED	YELLOW	GREEN	GREEN	RED	RED
Buried Oil	YELLOW	RED	RED	YELLOW	YELLOW	RED	RED	GREEN	GREEN	RED	YELLOW
Sensitive Habitat	GREEN	GREEN	GREEN	GREEN	RED	GREEN	GREEN	YELLOW	YELLOW	GREEN	GREEN
False Positives	YELLOW	GREEN	GREEN	GREEN	GREEN	GREEN	YELLOW	GREEN	GREEN	GREEN	GREEN
Coverage Rate	GREEN	GREEN	GREEN	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW	YELLOW
Data Turnaround	GREEN	GREEN	YELLOW	GREEN	YELLOW	YELLOW	GREEN	YELLOW	GREEN	GREEN	YELLOW

API Detection Study

RED = not likely effective

YELLOW = may be effective

GREEN = most likely effective



Recovery Capabilities

- **Dedicated resources**
 - **Submersible pumps**
 - **Sorbent material**
- **Contracted resources**
 - **Suction dredge**
 - **Diver directed pumping and vacuuming**
 - **Mechanical removal**
 - **Trawl and net**
 - **Manual removal**
 - **Agitation/refloat**



Table 5-2—Matrix to Evaluate Technologies for Sunken Oil Recovery

Red = not likely effective; yellow = may be effective; green = most likely effective

API Recovery Study

	Suction Dredge	Diver-Directed Vacuuming	Diver-Directed Pumping	Excavator	Grab/Clamshell Dredge	Environmental Clamshell	Sorbents/V-SORS	Trawls and Nets	Manual Removal Shallow Water	Manual Removal with Divers	Agitation/Refloat
Water Depth (ft)											
— <5 ft	Yellow	Red	Red	Green	Green	Green	Yellow	Yellow	Green	Green	Green
— 5 to 40 ft	Green	Green	Green	Yellow	Green	Green	Green	Yellow	Red	Green	Yellow
— 40 to 80 ft	Red	Green	Green	Red	Green	Green	Green	Yellow	Red	Yellow	Red
— >80 ft	Red	Green	Green	Red	Green	Green	Yellow	Yellow	Red	Red	Red
Water Visibility											
— >5 ft	Green	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green
— <5 ft	Green	Yellow	Yellow	Green	Green	Green	Green	Green	Yellow	Green	Green
Water Current											
— <1 (kt)	Green	Green	Green	Yellow	Green	Green	Green	Green	Green	Green	Green
— 1 to 2 kt	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow
— >2 kt	Yellow	Red	Red	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Red	Yellow
Wave Height (ft)											
— <2 ft	Green	Green	Green	Green	Green	Green	Green	Green	Yellow	Green	Green
— >2 ft	Yellow	Green	Green	Yellow	Green	Green	Green	Green	Red	Green	Yellow
Availability	Green	Green	Green	Green	Green	Yellow	Green	Yellow	Green	Green	Green
Oil Pumpability											
— Fluid	Green	Green	Green	Yellow	Yellow	Green	Green	Red	Red	Red	Yellow
— Not fluid	Red	Red	Yellow	Green	Green	Green	Red	Yellow	Green	Green	Red



Storage Capability

- **Dedicated resources**
 - **MSRC owns/operates 14 dedicated storage barges throughout the nation averaging 40,000**
- **Contracted resources**
 - **In some port areas, other non-dedicated storage may be available**



Containment Capability

- **MSRC has identified the following types of containment resources for NFO**
 - **Nets/Curtains**
 - **Physical Barriers (e.g., trenching)**
 - **Bottom Boom**
 - **Sheet Piling**
 - **Bubble Curtain**
 - **Filter Fence or Caged Sorbents**



Scenario

- **MSRC activation**
- **Site Safety Assessment**
- **Detection and observation resources**
- **MSRC dedicated and contracted resources based on environment, water depth and location**
 - **Containment of product**
 - **Recovery actions**
 - **Storage**

