



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL OCEAN SERVICE  
National Centers for Coastal Ocean Science  
Silver Spring, Maryland 20910

MEMORANDUM FOR: The Record

FROM: Margo Schulze-Haugen  
Deputy Director

SUBJECT: Categorical Exclusion for RESTORE Act Science Program Project #2771969, “Assessing Long-term Trends and Processes Driving Variability in Cetacean Density throughout the Gulf of Mexico using Passive Acoustic Monitoring and Habitat Modeling.”

ENCLs: (1) SEFSC CE Memo 6/6/2019  
(2) SEFSC CE Memo 6/10/2019

NOAA Administrative Order (NAO) 216-6A, Environmental Review Procedures, requires all proposed projects be reviewed with respect to environmental consequences on the human environment. This memorandum addresses the determination that the activities described below for award #2771969, “Assessing long-term trends and processes driving variability in Cetacean density throughout the Gulf of Mexico using passive acoustic monitoring and habitat modeling” qualifies to be categorically excluded from further National Environmental Policy Act (NEPA) review.

### **Categorical Exclusion Determination**

NCCOS determines that this project’s activities are within the scope of the E4 Categorical Exclusion. As Defined in Appendix E of the NAO 216-6A Companion Manual, E4 describes activities that remotely survey or observe living resources in the field using non-invasive techniques, which have little to no potential to adversely affect the environment or interfere with organisms or habitat. This action describes deployment and retrieval of moorings for the purpose of passively collecting acoustic data. Therefore, this action is categorically excluded from the need to prepare either an Environmental Assessment or an Environmental Impact Statement.

### **Purpose and Need**

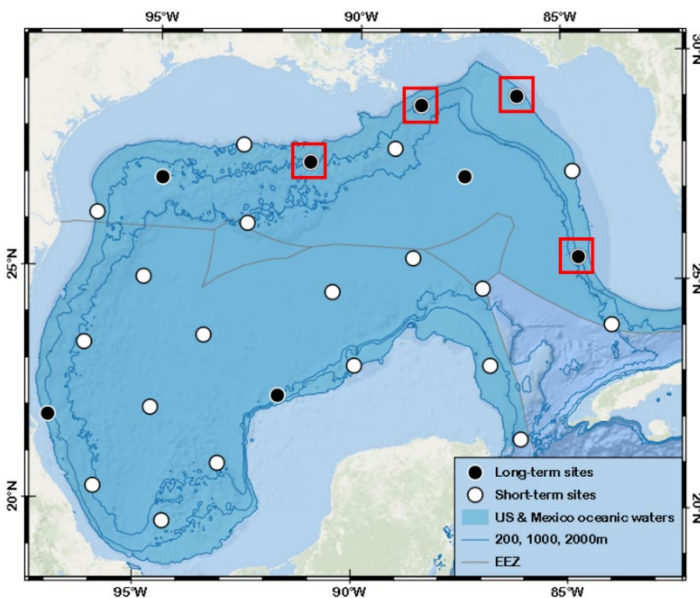
The RESTORE Act Science program is proposing to fund this five-year project to NOAA NMFS Southeast Fisheries Science Center and sub-awardees to implement a comprehensive, long-term, multi-scale passive acoustic monitoring (PAM) program throughout US and Mexican GOM waters and develop predictive habitat models to assess the processes driving seasonal, interannual, and decadal trends in spatial distribution, density, and abundance of oceanic cetaceans. To accomplish this, the researchers will address four primary objectives:



1. Initiate and extend time-series of cetacean species density over as much as a 20-year period at reference sites in diverse habitats throughout the GOM to characterize seasonal, interannual, and interdecadal trends and variability (field activity).
2. Compare trends and variability in density among sites and species to determine whether the processes driving the apparent declining trends in historic PAM data are due to animal movements throughout the GOM or true population declines (office activity).
3. Develop habitat models to quantify the relationships between cetacean density and mesoscale environmental variability including the Loop Current, mesoscale Loop Current eddies, and other physical oceanographic features, and evaluate the physical oceanographic processes driving short- and long-term variability in cetacean density (office activity).
4. Quantify the relationships between cetacean density and ambient noise conditions, including increased noise levels from human activities, and evaluate potential anthropogenic drivers of short- and long-term trends in cetacean density (office and workshop activities).

### Action Areas

The action areas for this project consists of the Gulf of Mexico oceanic waters greater than 200m in depth, including both US and Mexico waters. This is a collaborative study which will leverage existing data from the Scripps Institute of Oceanography (SIO) Gulf of Mexico HARP project (2010 – 2019) and Southeast Fisheries Science Center (SEFSC) vessel survey data (1992 – 2018) to extend the spatial and temporal coverage of the resulting cetacean density maps.



*Figure 1. Locations of passive acoustic monitoring HARP receivers. Long term stations shown as black circles. Proposed short term sites shown as white circles. Existing long term HARP stations shown in red boxes.*

## Project Activities

1. Data collection using PAM High frequency Acoustic Recording Package (HARP).
  - a. Long term (10 years)– The long term component would deploy a total of eight (8) PAM HARP units at long term reference sites throughout the US and Mexican waters over the entire duration of the project. Six of the eight long term HARPs are currently in place and this action will ensure continuity of long term (10+ years) data collection. This work will be done in collaboration with NRDA Open Ocean Trustee Implementation Group (OO-TIG) funded activities. RESTORE Science Program funding will cover the maintenance and upkeep of 2 of the 8 PAM HARP units.
  - b. Short term (1 year) – The short term component will establish twenty (20) randomly selected short-term sites throughout the US and Mexican waters for deployment of four (4) PAM HARP units that will be randomly rotated through sites on a one year cycle to cover five sites per PAM HARP unit over the 5 year project period.
  - c. Tracking (4 months) – The tracking component will deploy a PAM HARP tracking array at three (3) sites for four month recording durations to track sound producing cetaceans and estimate site-specific signal propagation and acoustic behaviors to allow more robust density estimation.

PAM HARP Specifications – HARPs have no surface expression. The majority of the package is just above the seafloor, except for deep moorings for which the majority of the package is suspended at ~950m depth. Moorings are temporary, with the exception of the mooring ballast weights which are left behind upon recovery. Long term moorings remain in the water throughout the duration of the project data collection. Researchers replace batteries on the long term moorings annually, but leave all other components intact.

Deployment consists of first releasing the floats off the back of the ship, followed by the hydrophone, then the data logger and battery cases, then the acoustic releases and finally lowering the weights into the water and releasing them at the site location. The mooring then sinks to the seafloor where it remains until recovery. Following recovery, a new or refurbished mooring is deployed at the same site (for long term sites). HARP configurations depend on site locations. A mix of 4 configurations will be required for this project (see figures 2- 5).

- Compact small mooring (CSM) (figure 2) - A typical compact HARP mooring consists of 150-200 lbs of steel weights connected via a 6m long 3/8” chain to a double acoustic release. The releases are connected by a 5m long 3/8” chain to a float module including a data logger pressure case package and battery pressure case package. The float module is connected to a hydrophone and additional floats above it with a 1/4” poly line. The hydrophone is typically about 20m above the seafloor and the highest float is 3 – 5m above that, with a total water column height of approximately 30m. A total of 5 CSM deployed HARPs will be in use per year. Each year researchers will retrieve the CSM HARPs and deploy new ones in a different location.

- Deepwater mooring (figure 3) – A Deepwater mooring is the same as above except that there is a variable length of ½” line between the ballast weights and the double acoustic release. The length of this line is dependent on seafloor depth (max 3750m). The length is sufficient to ensure the HARP instrumentation package is suspended at approximately 800-950m depth. The maximum vertical water column length of this package is calculated to be 2950m, based on an assumed maximum seafloor depth of 3750m in the Gulf of Mexico (3750m total depth – 800m below sea surface = 2950m). Upon servicing/recovery, the acoustic releases leave behind the mooring weights and a short length of chain and allow the rest of the package to return to the surface. There will be two Deepwater moorings out at any given time, one in US waters at a long- term site and one at a short-term site. These will remain in place throughout the duration of the project.
  - Seafloor package (figure 4)– Seafloor package frames are similar to other designs but the releases, weights, pressure cases and flotation are all attached to one frame, with the hydrophone buoyed above as previously described. Total height in the water column is approximately 15m for seafloor packages. Seafloor package footprint is 1m x 1m. There will be one Seafloor package deployed at a time. Researchers will retrieve this package annually and deploy it in a different location.
  - Tracking package (figure 5) – Tracking HARPS are built using the seafloor frame design, but with a fiberglass mast approximately 5m tall, supporting a plastic trellis about 1m wide above it which supports a small volumetric array of 4 hydrophones. The total water column height is 6m.
2. Anchoring - While no anchoring is anticipated for this cruise as a result of science activities, anchoring may be required for other reasons, such as avoidance of adverse weather conditions or in the unlikely event of an engine malfunction. While the choice of anchoring location is at the discretion of the ship’s crew, if anchoring were necessary, vessel operators would select the anchor location based on depth, protection from seas and wind, and bottom type. Preferred bottom types include sticky mud or sand; they would not anchor on rocky or coral reefs. When working in a previously un-surveyed area or an area that has not been surveyed in many years, the vessel may collect hydrographic data to provide information on where to drop the anchor (i.e., to avoid coral reefs and rocky seabed areas).
  3. Vessel Transit - Researchers will use Louisiana Universities Marine Consortium (LUMCON) vessel the R/V Pelican (homeport: Cocodrie, LA), for maintenance, deployment and retrieval of PAM HARP equipment. If the R/V Pelican is not available, researchers may use NOAA’s Gordon Gunter which has a homeport in Pascagoula, MS. Transit paths will vary depending on which HARP sites are being accessed, and will be determined with the captain prior to the cruise to minimize travel distance.
  4. Office Activities – Office activities include data retrieval from data loggers, data processing, modeling of data to determine cetacean densities and meetings with project end users and stakeholders. See above ‘Purpose and Need’ project descriptions 2 – 4 for further details.

High-frequency Acoustic Recording  
Package (HARP) Compact Small  
Mooring Configuration (CSM)

17-18" Spherical Glass Floats

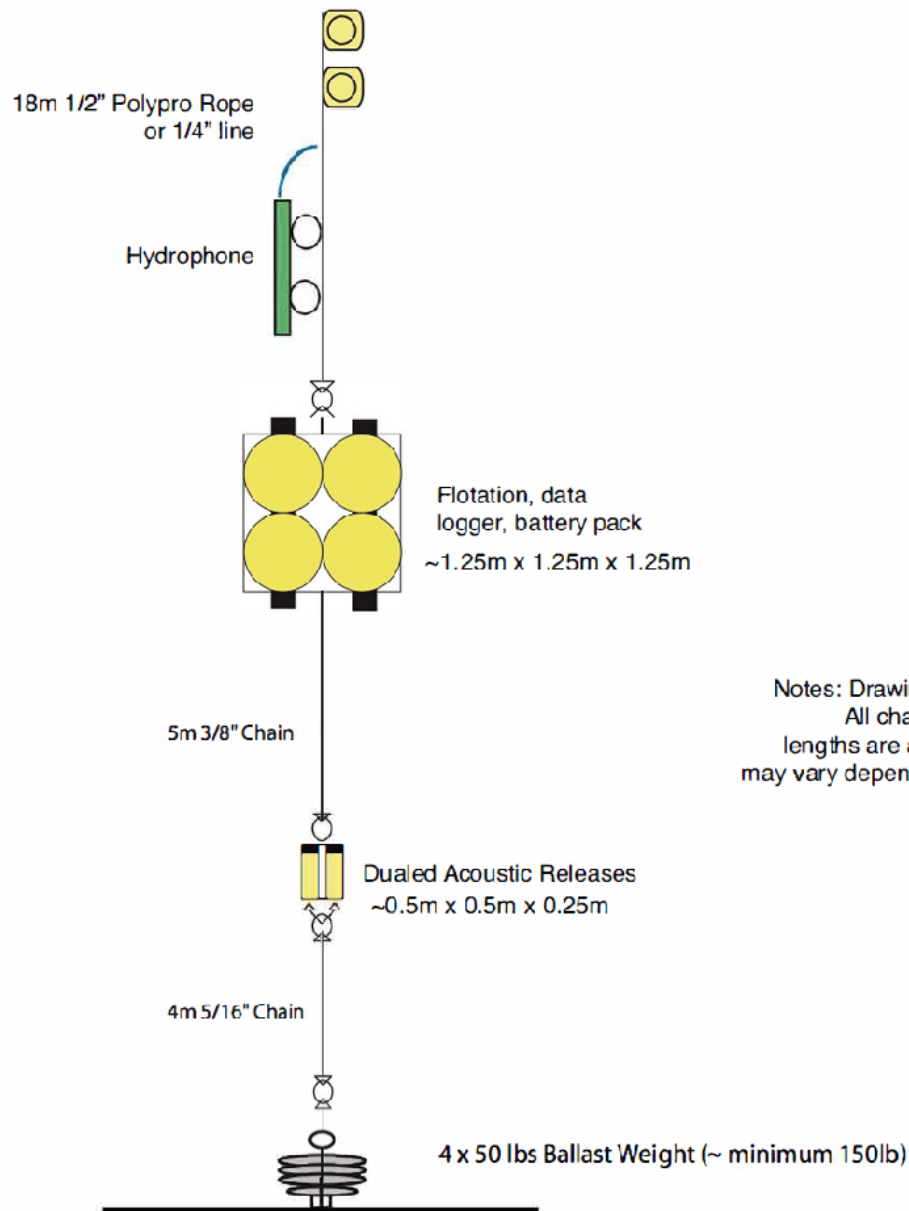
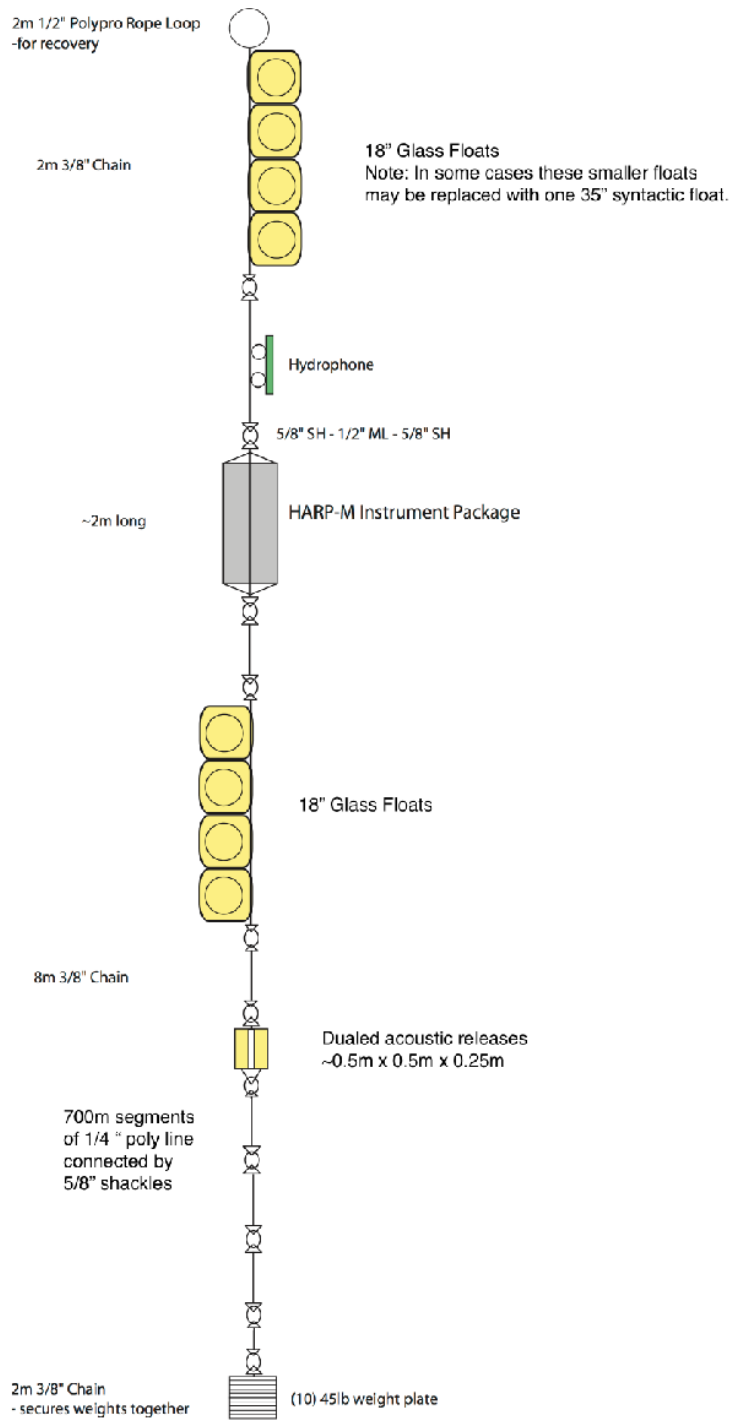


Figure 2 – Compact small mooring configuration for passive acoustic monitoring HARPs.



**HARP Deep Mooring**  
 Drawing not to Scale  
 Poly line length is a  
 representative estimate for deep  
 central Gulf moorings. Actual  
 length will vary depending on site  
 locations. Moorings will be  
 designed so that top floats are no  
 shallower than ~800m.

Figure 3 – Deepwater mooring configuration for passive acoustic monitoring HARPs.

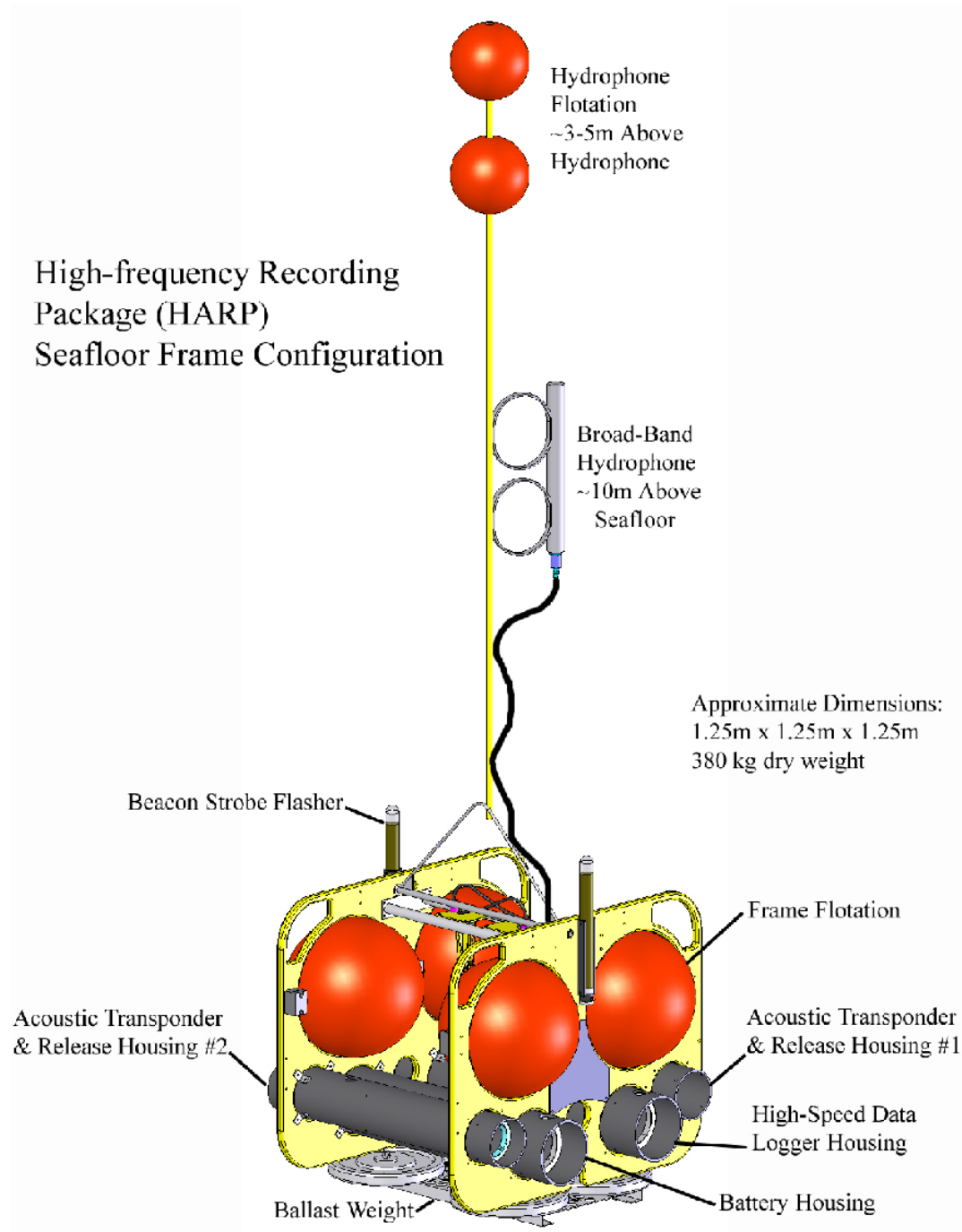


Figure 4 – Seafloor frame configuration for passive acoustic monitoring HARPs.

Tracking HARP  
seafloor package  
configuration

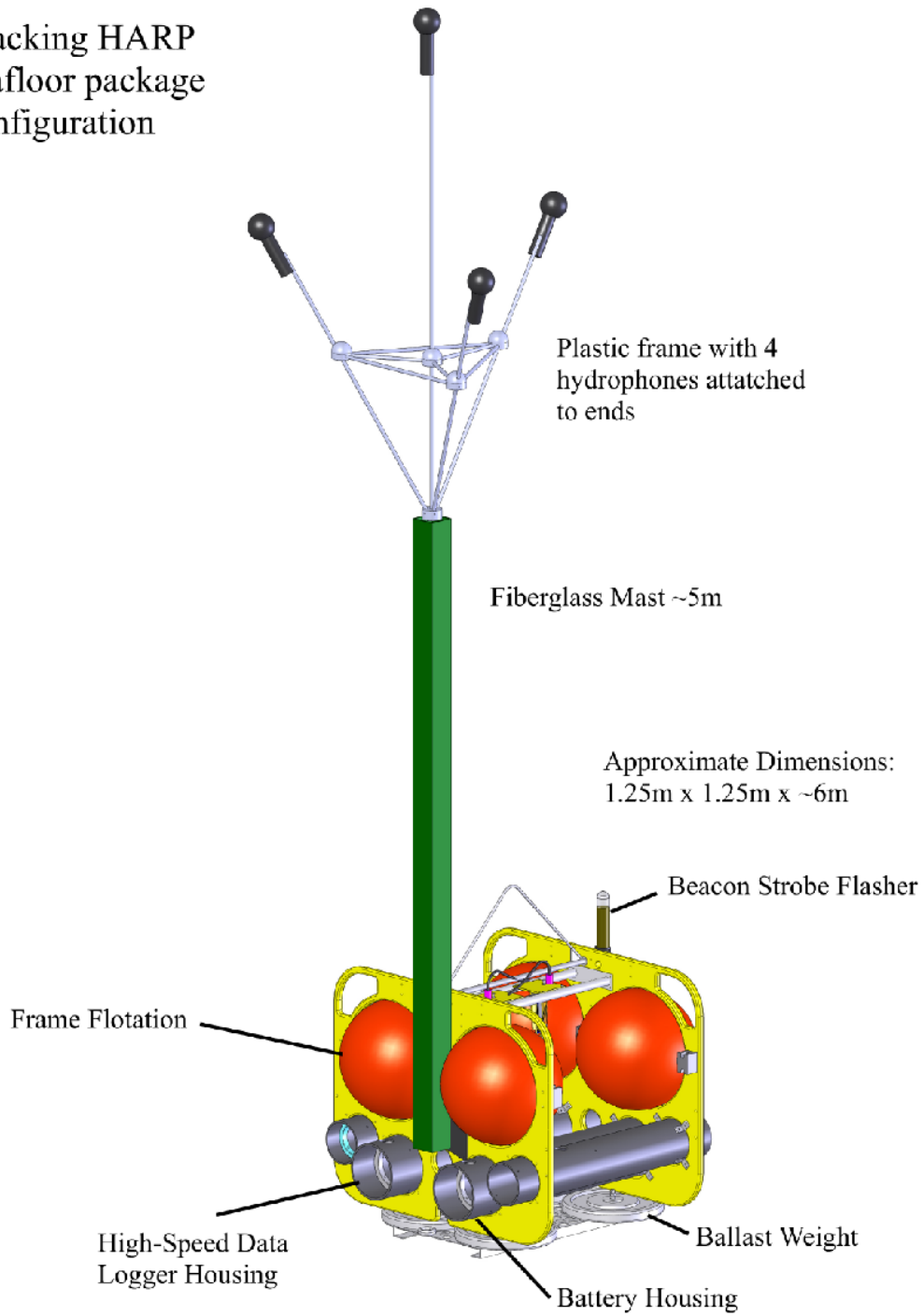


Figure 5 – Tracking configuration for passive acoustic monitoring HARPs.



**Effects of the Project, Environmental Statutes & NCCOS Determination of Effects:**

Endangered Species Act (ESA) Section 7 (a)(2) requires that each Federal agency, in consultation with NMFS and/or the U.S. Fish and Wildlife Service (USFWS), ensure that any action authorized, funded, or carried out by the agency is not likely to jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of designated critical habitat. The field research activities do not occur in the range of the one ESA listed species under the authority of USFWS, the West Indian manatee (*Trichechus manatus*), see figure 1.

There are a total of twenty-two (22) threatened or endangered species that may occur in the Gulf of Mexico action area. Seven (7) species of corals, five (5) marine mammal species (details under MMPA section below), five (5) turtle species and five (5) fish species listed under ESA within the Gulf of Mexico (GOM) (Table 1).

Table 1. Gulf of Mexico’s Threatened and Endangered Species. T = threatened, E = endangered,

Status	Species Name	Scientific Name	Critical Habitat (in GOM)
<b>Corals</b>			
T	Elkhorn Coral	<i>Acropora palmata</i>	None in GOM*
T	Staghorn Coral	<i>Acropora cervicornis</i>	None in GOM*
T	Lobed Star Coral	<i>Orbicella annularis</i>	N/A
T	Boulder Star Coral	<i>Orbicella franksi</i>	N/A
T	Rough Cactus Coral	<i>Mycetophyllia ferox</i>	N/A
T	Pillar Coral	<i>Dendrogyra cylindrus</i>	N/A
T	Mountainous Star Coral	<i>Orbicella faveolata</i>	N/A
<b>Marine Mammals</b>			
E	Blue Whales	<i>Balenoptera musculus</i>	N/A
E	Fin Whale	<i>Balenoptera physalus</i>	N/A

E	Sei Whale	Balenoptera borealis	N/A
E	Sperm Whale	Physeter macrocephalus	N/A
E	GOM Bryde's Whale	Balenoptera edeni	N/A
<b>Sea Turtles</b>			
T	Green Sea Turtle	Chelonia mydas	N/A
E	Hawksbill Sea Turtle	Eretmochelys imbricata	N/A
E	Kemps Ridley Sea Turtle	Lepidochelys kempii	N/A
E	Leatherback Sea Turtle	Dermochelys coriacea	N/A
T	Loggerhead Sea Turtle	Caretta caretta	Yes, <a href="#">see map</a>
<b>Fishes</b>			
T	Gulf Sturgeon	Acipenser oxyrinchus desotoi	Yes, <a href="#">see map</a>
E	Nassau Grouper	Epinephelus striatus	N/A
T	Smalltooth Sawfish	Pristis pectinata	yes, <a href="#">see map</a> *
T	Giant Manta Ray	Manta birostris	N/A
T	Oceanic Whitetip Shark	Carcharhinus longimanus	N/A

\* critical habitat not in project location

### Corals

The distribution of corals may overlap with the research action area but researchers will avoid areas known to support coral. In the unlikely event that vessels are required to anchor, researchers will use existing habitat maps to determine the locations and densities of corals and avoid these areas. Researchers will not deploy any PAM HARPs in known coral areas and will not deploy any equipment in either the Flower Garden Banks National Marine Sanctuary or the Florida Keys National Marine Sanctuary. Researchers will inspect all deployment areas to ensure that ballast weights will not impact HAPC. *Therefore, NCCOS determines that research activities will have no adverse effect on ESA listed coral species.*

## Fishes

There are five (5) ESA-listed fish species that may occur in the action area. Research activities and vessel transit would not have adverse impacts on listed fish species. For example, HARPs are relatively small isolated devices that do not emit noise and would have no adverse effects on the behavior, reproduction or survival of ESA-listed fishes or have any adverse effects to water quality. Protected species observers will ensure that the vessel avoids impacts to any ESA-listed species observed. Further HARPs would not be deployed in reef environments where ESA-listed species may occur. There is critical habitat designated for Gulf Sturgeon that is within proximity to potential vessel operations. Primary constituent elements (PCEs) of Gulf Sturgeon critical habitat that are essential for the conservation of the Gulf sturgeon include the following: (1) Abundant food items, (2) Riverine spawning sites, (3) Riverine aggregation areas, (4) Adequate riverine flow regime, (5) Adequate water quality, (6) Adequate sediment quality, and (7) Safe and unobstructed migratory pathways. Only vessel transit will occur within the critical habitat, which will be temporary and localized (Pascagoula) and have no impact on any of the PCEs mentioned above. No other critical habitat is designated within the project area (figure 1). *Thus, NCCOS determines that transit and research activities would have no adverse effect on ESA listed fish species or their critical habitat.*

## Sea Turtles

There are five species of sea turtles that may occur within the action area (Table 1). Deployment of HARPs in the water column and on the seafloor have a small (<1m<sup>2</sup>) footprint that will not impact sea turtles because the chain used to hold the HARP in the water column is thick and kept taut at all times to prevent entanglement. There has never been any adverse effects on sea turtles from the HARP deployments, retrieval or when in place.

In addition, loggerhead sea turtles (*Caretta caretta*) have critical habitat designated throughout the Gulf ([see here](#)). Loggerhead sea turtle *Sargassum* critical habitat overlaps the research area in the western Gulf of Mexico, west of the Mississippi River Delta. Research activities and transit will occur in this critical habitat areas. The research activities and vessel transit will not destroy or adversely modify the essential features of the designated critical habitat (Table 2). Research vessels proposed for use in this study are routinely used for similar purposes and do not represent an increase in vessel traffic, noise or pollution potential. Further grant recipients will maintain 100% protected species observer coverage and reduce speed or stop work as needed to maintain minimum approach distances (See BMPs pg. 11). Further, HARPS will not be deployed or retrieved in the presences of sea turtles. *Therefore, NCCOS determines that research activities and vessel transit would have no adverse effects on sea turtles or destroy or adversely modify designated critical habitat for loggerhead sea turtles.*

Table 2. Essential features of loggerhead sea turtle Northwest Atlantic Ocean DPS designated critical habitat.

Loggerhead Critical Habitat Unit	Essential Features
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Nearshore Reproductive Habitat	<ul style="list-style-type: none"> <li>● Waters off of the highest density nesting beaches;</li> <li>● Waters sufficiently free of obstructions or artificial lighting; and</li> <li>● Waters with minimal manmade structures.</li> </ul>
Constricted Migratory Habitat	<ul style="list-style-type: none"> <li>● Constricted Continental Shelf area relative to nearby Continental Shelf waters; and</li> <li>● Passage conditions to allow for migration to and from nesting, breeding, and foraging areas.</li> </ul>
Breeding Habitat	<ul style="list-style-type: none"> <li>● High densities of reproductive males and females;</li> <li>● Proximity to primary Florida migratory corridor; and</li> <li>● Proximity to Florida nesting grounds.</li> </ul>
Winter Habitat	<ul style="list-style-type: none"> <li>● Water temperatures above 10°C from November to April;</li> <li>● Continental Shelf waters in proximity to the western boundary of the Gulf Stream; and</li> <li>● Water depths between 20 and 100 m.</li> </ul>
Foraging Habitat	<ul style="list-style-type: none"> <li>● Sufficient prey availability and quality, such as benthic invertebrates; and</li> <li>● Water temperatures to support loggerhead inhabitation, generally above 10°C.</li> </ul>

### Marine Mammals

Marine Mammal Protection Act (MMPA) - All marine mammals are protected under the MMPA. Sections 101 (a)(5)(A) and (D) allow the incidental take of marine mammals only under special circumstances, where “take is defined as “to harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal” (16 U.S.C. §1361-1421h). Harassment includes any annoyance which has the potential to injure a marine mammal or stock (Level A) or disrupt its behavioral patterns (Level B).

There are five (5) species of threatened and endangered marine mammals whose potential ranges overlap with the action area of the research activities (Table 1). These include, Blue Whale (*Balaenoptera musculus*), Fin Whale (*Balaenoptera physalus*), Sei Whale (*Balaenoptera borealis*), Sperm Whale (*Physeter microcephalus*), and Bryde’s Whale (*Balaenoptera edonii*). Research activities are designed to better understand marine mammal distributions and the potential affect of ocean noise. All research activities will be passive acoustic monitoring on stationary moorings (Figure 2-5), that maintains taut lines at variable levels above the seafloor so that the total HARP package occupies 5 to 30meters of vertical water column space. The2 devices that will be deployed in deep water locations, (up to 3750 m) have longer lines, but these lines are no shallower than 800m. No active acoustics will be used in this project with the exception of downward facing depthfinders used on all vessels. Further, during deployment and retrieval of the HARPs protected species observers would ensure that no marine mammals were in the area at the

time of deployment and retrieval. Lines will remain taut on the mooring arrays to prevent entanglement. There has never been an adverse impact to a marine mammal from the HARPs or other stationary array. Research vessels proposed for use in this study are used routinely and do not represent an increase in vessel traffic, pollution or noise. Grant recipients will also employ BMPs (pg. 15) as applicable, such as, maintaining 100% protected species observer coverage, minimum approach distances and reducing speed and/or stopping work if protected species are observed in the area. *Therefore, NCCOS determines there would be no adverse effect on marine mammals from passive acoustic monitoring research activities or vessel transit.*

*On May 21, 2019 NCCOS staff met with NMFS environmental compliance staff from the Southeast Regional Office and discussed the proposed action described here. NMFS staff agreed that research and cruise activities will not impact marine mammals or their critical habitat. Similarly, NCCOS determines that cruise activities would not adversely affect marine mammals and/or designated critical habitat based on the review within the ESA section above. The MMPA allows that action proponents may determine without concurrence that the action does not have a reasonable likelihood of resulting in the incidental take of marine mammals.*

### **Essential Fish Habitat**

Magnuson-Stevens Fishery Conservation and Management Act requires that Federal agencies consult with NMFS on actions that “may adversely affect” Essential Fish Habitat (EFH) (16 U.S.C. §1855(b)(2)).

NCCOS examined two sources from the NOAA Office of Habitat Conservation (OHC) to conduct this analysis of potential impacts to EFH. NCCOS consulted the NOAA OHC, [EFH mapper](#) and the [2015 Final Essential Fish Habitat 5-Year Review for Atlantic Highly Migratory Species](#). The EFH Mapper sources indicated that there is no coral EFH within the research activity area. However, both sources indicated the following species groups or taxa potentially have EFH designated within the research activity area (Figure 1) as follows:

#### Species or Taxa within Research Area:

1. Coastal Migratory Pelagics
2. Corals
3. Red Drum
4. Reef Fish
5. Shrimp
6. Bluefin Tuna
7. Sailfish
8. Atlantic Sharpnose Shark
9. Bigeye Thresher Shark
10. Bignose Shark
11. Blacknose Shark
12. Blacktip Shark
13. Bonnethead Shark
14. Bull Shark

15. Great Hammerhead Shark
16. Lemon Shark
17. Night Shark
18. Nurse Shark
19. Sandbar Shark
20. Scalloped Hammerhead SHark
21. Silky Shark
22. Smoothhound Shark Complex
23. Spinner Shark
24. Tiger Shark
25. Whale Shark

Based on the planned research activities and the potential EFH that could be encountered, NCCOS determines that no adverse effects to EFH, either direct or indirect, would occur within the proposed research action or transit area. HARPs have a small (~1.25m<sup>2</sup>) footprint on the seafloor with the chain/cable extending no more than 30 m into the water column, with the exception of the 2 deepwater moorings which have lines that extend to 800m below the sea surface (~2950m). However, only two deep water moorings are placed in the Gulf of Mexico and there has never been an adverse affect to any protected species from HARPs. Ballast weights will remain on the seafloor after recovery of the HARPs. However, HARPs will not be deployed in coral habitat or any HAPC. Further, there will be no fish collections and no impacts to water quality. There is no potential for the acoustic gear to adversely affect EFH as it will have no contact with the benthos and have no impact to water quality. Further, NCCOS would use BMPs (last section) if anchoring is needed to avoid impacting EFH.

In addition, there are 18 Habitat Areas of Particular Concern (HAPC) within the GOM (see EFH mapper). Some of these areas overlap with the area of research activities (Figure 1). As described above research and vessel transit activities are non-invasive by nature and have a limited temporal and spatial footprint. Researchers will inspect all deployment areas to ensure that ballast weights will not impact HAPC. Therefore HAPCs would not be impacted. Finally, no EFH areas closed to fishing overlap with vessel transit or research activity areas.

*On May 21, 2019 NCCOS staff met with NMFS environmental compliance staff from the Southeast Regional Office and discussed the proposed action described here. NMFS staff agreed that research and cruise activities will not impact Essential Fish Habitat or any of the 18 HAPC. Therefore, NCCOS determines that research, vessel transit or potential anchoring activities of this project will have no adverse impacts on EFH or HAPC.*

#### **National Marine Sanctuaries Act (NMSA)**

Section 304(d) of the National Marine Sanctuaries Act requires the “action agency” to consult with the Office of National Marine Sanctuaries if the action is “likely to destroy, cause the loss of, or injure a sanctuary resource” (16 U.S.C. §1431 et seq.). However, no activities will be conducted within a National Marine Sanctuary; therefore, we will not be requesting a letter of concurrence pursuant to this Act.

### **National Historic Preservation Act (NHPA)**

Section 106 requires Federal agencies to take into account the effects of their actions on historic resources (16 U.S.C. §470 et seq.). After review of the National Historic Registry Database, NCCOS found no known Historic resources that are within the action area of research activities. Further, no adverse impacts to cultural resources are expected as a result of either vessel transit or research activities, thus NCCOS is not required to request a Section 106 consultation. However, according to NOAA nautical charts there are known shipwrecks within the research activities region, which will be avoided as hazards to navigation.

### **Coastal Zone Management Act (CZMA)**

Federal consistency under the CZMA requires federal actions (inside or outside a state's [coastal zone](#)) that affect any land or water use or natural resource of a state's coastal zone, to be consistent with the enforceable policies of the state coastal management program (CMP). The term "effect on any coastal use or resource," means any reasonably foreseeable effect on any coastal use or resource resulting from the activity, including direct and indirect (cumulative and secondary) effects. The type of federal action addressed in this project falls under federal consistency regulations, found at 15 C.F.R. part 930, subpart F. Subpart F applies to federal financial assistance provided to state and local governments. Federal assistance activities (subpart F) occur when a state agency or local government applies for federal financial assistance. States list in their CMPs the federal assistance activities subject to federal consistency review (see <https://coast.noaa.gov/czm/consistency/states/>).

If an applicant is required to submit a Consistency Certification to a state, then the federal agency cannot issue the federal assistance unless and until the state has concurred with the applicant's Consistency Certification or concurrence is presumed. For this project, the proposed activity has not been listed by the states (FL, AL, MS, LA, TX) as the type of project that requires a consistency review. Therefore, no Consistency Certification is required and no further CZMA review is necessary for this project.

### **Extraordinary Circumstances**

Project activities described are non-invasive and have a limited spatial footprint (1m<sup>2</sup>) and temporal footprint, with only 8 moorings being deployed (only 2 of these are new) for up to 10 years and twenty-five moorings deployed on yearly or 4-month intervals throughout the Gulf of Mexico. In addition, there are only two deepwater deployments that have a cable/lines extending at most 2950 meters up into the water column with the instrument package suspended at 800 meters depth. There is no surface expression of these instruments. No collections of any species will occur because the sampling methods do not involve nets and are limited to the deployment and retrieval of passive acoustic monitoring devices. Ballast weights left in the environment would occupy an extremely small area relative to the amount of seafloor that is available and have no adverse affects on water quality or the benthos because researchers will ensure that deployment location is devoid of sensitive habitats. PAM HARP deployment and retrieval has been occurring for approximately a decade (funded by other sources) with no adverse environmental impacts ever being observed. Therefore, there are no uncertain environmental impacts or unknown risks as project activities are routine and noninvasive and will have no

impact on geographically or ecologically critical areas, (sanctuaries, wetlands, watersheds), National Historic Sites, and no adverse impacts to marine mammals, essential fish habitat (marsh, wetlands, seagrasses, corals, etc.) or threatened and endangered species or their critical habitat. The proposed project activity does not involve air, noise, or water quality impacts; and does not otherwise have a significant impact on the human environment. The activities described in this memorandum have occurred many times in the past and have been most recently determined to be categorically excludable by the SEFSC (Encl 1,2). Therefore, these activities are not the subject of controversy based on potential environmental consequences and do not establish a precedent or decision in principle about future proposals.

The proposed project does not have a disproportionately high and adverse effect on the health or the environment of minority or low income communities, compared to the impacts on other communities (EO 12898). All vessels and equipment are local to the region, therefore this project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or involve actions that may promote the introduction, growth, or expansion of the range of the species. There is no potential to violate Federal, State, or local law or requirements imposed for protection of the environment. Thus, there are no extraordinary circumstances present that may require further analysis in an EA or EIS.

### **Protective Measures and Best Management Practices Incorporated into the Action**

In the event of unauthorized incidental take of protected species, NCCOS would suspend all activities causing such take and immediately contact NMFS Office of Protected Resources (see contact below). NCCOS would request ESA Section 7 initiation in the event of unauthorized take, systematic noncompliance, unanticipated adverse effects, or modification of the action.

NMFS POC – Noah Silverman, noah.silverman@noaa.gov, 727- 824-5353, NMFS SERO

BMPs are required to be incorporated within project instructions, cruise plans and NEPA documentation including financial assistance awards and environmental review memoranda. All applicable BMPs must be communicated to the principal investigators, boat operators and field staff in order to explain responsibilities, communication procedures, marine mammal monitoring protocol, and operational procedures.

1. During transit a vessel operator and crew will maintain a look out for protected species and reduce speed as necessary to avoid protected species.
2. Upon sighting, maintain the following distances, at a minimum, for these species
  - a. Cetaceans:
    - i. 200 yards from large whales,
    - ii. 500 yards from North Atlantic right whales and killer whales, and
    - iii. 100 yards from all other species.



- b. Sea turtles: 50 yards
  - c. Sawfishes: 50 yards
  - d. Sturgeon: 50 yards
  - e. Manatees: 50 yards
3. Minimize vessel disturbance and ship strike potential
    - a. Reduced speeds (<13 knots) when ESA-listed cetaceans are sighted (unless otherwise required, e.g., NOAA Sanctuaries)
    - b. Reduced speeds (<13 knots) while transiting through designated critical habitat (e.g. avoid sargassum)
    - c. 100% observer coverage, vessel operator can double as observer, but two observers are required at night.;
  4. Minimize noise
    - a. Reduced speed (see above)
  5. Minimize vessel discharges (including aquatic nuisance species)
    - a. Meet all Coast Guard requirements.
    - b. Clean hull regularly to remove aquatic nuisance species.
    - c. Avoid cleaning of hull in critical habitat.
    - d. Avoid cleaners with nonylphenols.
  6. Minimize impacts to seagrasses, corals and other Essential Fish Habitat (EFH)
    - a. Inspect benthic location to ensure no EFH or other sensitive habitat is in area of PAM HARP deployment.
    - b. Anchoring in mud or sand (avoid seagrass or other EFH)
    - c. Minimizing anchor drag (i.e. provide adequate scope)
    - d. Avoid grounding by raising prop or reducing speed as necessary
    - e. Use designated anchorage area when available
    - f. Use mapping data to anchor in mud or sand, to avoid anchoring on corals
  7. Entanglement Protective Measures
    - a. Ensure no protected species (e.g. marine mammals, sea turtles) are in the area prior to deployment and retrieval of PAM HARPs.
    - b. Use stiffer line materials for towing and keep taut during operations to reduce potential for entanglement
    - c. Reduce knots in the line as much as possible
    - d. Clearly mark lines in the event an animal does become entangled so that NMFS experts can identify the gear.
  8. Injured or Dead Protected Species Reporting
    - a. In the unlikely event of an animal death or injury, vessel operators should immediately contact NMFS staff, as applicable.

- b. If the NOAA vessel is responsible for the injury or death, the responsible parties will remain available to assist, as needed. Vessel operators must report the following information to the NMFS Regional Office immediately
  - i. the time, date, and location (latitude/longitude) of the incident;
  - ii. the name and type of the vessel involved;
  - iii. the vessel's speed during the incident;
  - iv. a description of the incident;
  - v. water depth;
  - vi. environmental conditions (e.g., wind speed and direction, sea state, cloud cover, and visibility);
  - vii. species identification or description of the animal, if possible; and the fate of the animal.