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## Incidental Take Authorizations

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### Overview

This page is designed to provide information on why the marine mammal non-fishery interaction program was created, how the program operates under current laws and regulations, and to provide guidance on how to obtain marine mammal small take authorizations for non-fishery activities. The marine mammal non-fishery interaction program is tasked with implementation of section 101(a)(5) (A-D) of the [Marine Mammal Protection Act of 1972](#) (MMPA), as amended (16 U.S.C. 1371(a)(5)), which provides a mechanism for allowing, upon request, the "incidental", but not intentional, taking, of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographic region.

### MMPA Incidental Take Authorization or Letter of Authorization (LOA)

In 1981, Congress amended the MMPA to provide for "incidental take" authorizations for maritime activities, provided NMFS found the takings would be of small numbers and have no more than a "[negligible impact](#)" on those marine mammal species not listed as depleted under the MMPA (i.e., listed under the [Endangered Species Act \(ESA\)](#), and not having an "[unmitigable adverse impact](#)" on subsistence harvests of these species. These "incidental take" authorizations, also known as Letters of Authorization or LOAs, require that regulations be promulgated and published in the *Federal Register* outlining:

- Permissible methods and the specified geographical region of taking;
- The means of effecting the least practicable adverse impact on the species or stock and its habitat and on the availability of the species or stock for "[subsistence](#)" uses; and,
- Requirements for monitoring and reporting, including requirements for the independent peer-review of proposed monitoring plans where the proposed activity may affect the availability of a species or stock for taking for subsistence uses.

In 1986, Congress amended both the MMPA, under the incidental take program, and the ESA to authorize takings of depleted (and endangered or threatened) marine mammals, again provided the taking (lethal, injurious, or harassment) was small in number and had a negligible impact on marine mammals.

### MMPA Incidental Harassment Authorization (IHA)

In 1994, MMPA section 101(a)(5) was amended to establish an expedited process by which citizens of the U.S. can apply for an authorization to incidentally take small numbers of marine mammals by "[harassment](#)", referred to as Incidental Harassment Authorizations or IHAs. It established specific time limits for public notice and comment on any requests for authorization which would be granted under this new provision. According to the legislative history, Congress expected NMFS to act expeditiously in complying with the notice and comment requirements and expected NMFS to use the general rule making authority available under section 112 of the MMPA to establish a process for granting authorization in the case of incidental takes by harassment in "[Arctic waters](#)". In 1996 NMFS published an interim final rule (50 CFR Part 216.101-108) implementing this aspect of the program. The interim rule will be amended and written upon completion of NMFS' criteria for [acoustic harassment](#).

Because the incidental harassment authorization process has eliminated the need for

promulgating specific regulations on the incidental taking, IHAs have been of increasing interest since 1994 for those individuals with relatively short-term activities that might inadvertently harass marine mammals. This program allows authorizations to be issued in 120 days, instead of the 6-8 months required for LOAs issued under regulations.

#### Types of Activities

Most LOAs and IHAs to date have involved the incidental harassment of marine mammals by noise. Activities with the greatest potential to harass by noise include:

- seismic airguns
- ship and aircraft noise
- high energy sonars
- explosives detonations

#### Applying for an LOA or IHA

First the applicant must ask: **Do I need an LOA or an IHA?**

The applicant should apply for an **IHA** and does not need an LOA for the activity if it can be shown that:

1. there is no potential for serious injury or mortality; or,
2. the potential for serious injury or mortality can be negated through mitigation requirements that could be required under the authorization

If these two requirements cannot be met, or in other words, if the potential for "[serious injury](#)" and/or mortalities exists and there are no mitigating measurements that could be taken to prevent this form of 'take' from occurring, then the applicant must obtain an **LOA**.

After the type of authorization is determined, the applicant must submit a written request to the NMFS Office of Protected Resources AND the appropriate NMFS [Regional Office](#) where the specified activity is planned. These requests must include items 1-14 below before being considered by NMFS.

{Note that incomplete applications and applications that do not contain or refer to the necessary [NEPA](#) documentation, if applicable, will be returned to the applicant with explanation.}

**All applications for marine mammal incidental take authorizations, whether an LOA or an IHA, must include the following information in sufficient detail for NOAA Fisheries to meet the requirements mandated by section 7 of the Endangered Species Act and the National Environmental Policy Act (NEPA):**

1. A detailed description of the specific activity or class of activities that can be expected to result in incidental taking of marine mammals;
2. The date(s) and duration of such activity and the specific geographical region where it will occur;
3. The species and numbers of marine mammals likely to be found within the activity area;
4. A description of the status, distribution, and seasonal distribution (when applicable) of the affected species or stocks of marine mammals likely to be affected by such activities;
5. The type of incidental taking authorization that is being requested (i.e., takes by harassment only; takes by harassment, injury and/or death) and the method of incidental taking;
6. By age, sex, and reproductive condition (if possible), the number of marine mammals (by species) that may be taken by each type of taking identified in paragraph (a)(5) of this section, and the number of times such takings by each type of taking are likely to occur;
7. The anticipated impact of the activity upon the species or stock;
8. The anticipated impact of the activity on the availability of the species or stocks of marine mammals for subsistence uses;
9. The anticipated impact of the activity upon the habitat of the marine mammal populations, and the likelihood of restoration of the affected habitat;
10. The anticipated impact of the loss or modification of the habitat on the marine

- mammal populations involved;
11. The availability and feasibility (economic and technological) of equipment, methods, and manner of conducting such activity or other means of effecting the least practicable adverse impact upon the affected species or stocks, their habitat, and on their availability for subsistence uses, paying particular attention to rookeries, mating grounds, and areas of similar significance;
  12. Where the proposed activity would take place in or near a traditional Arctic subsistence hunting area and/or may affect the availability of a species or stock of marine mammal for Arctic subsistence uses, the applicant must submit either a ["plan of cooperation"](#) or information that identifies what measures have been taken and/or will be taken to minimize any adverse effects on the availability of marine mammals for subsistence uses.
  13. The suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species, the level of taking or impacts on populations of marine mammals that are expected to be present while conducting activities and suggested means of minimizing burdens by coordinating such reporting requirements with other schemes already applicable to persons conducting such activity. Monitoring plans should include a description of the survey techniques that would be used to determine the movement and activity of marine mammals near the activity site(s) including migration and other habitat uses, such as feeding. Guidelines for developing a site-specific monitoring plan may be obtained by writing to the Director, Office of Protected Resources; and
  14. Suggested means of learning of, encouraging, and coordinating research opportunities, plans, and activities relating to reducing such incidental taking and evaluating its effects.

**How long does it take to get an authorization once the application is complete?**

Please note that decisions on **LOA** applications (includes two comment periods, possible public hearings, and consultations) may take from 6-12 months. **IHA** decisions normally involve one comment period and, depending on the issues and species involved, can take anywhere from 2-6 months.

**Endangered Species Act Authorizations Involving Marine Mammals**

The 1986 MMPA Amendments provided for an authorization to incidentally take ESA-listed marine mammals provided the taking (including mortality) was authorized under section 101(a)(5) of the MMPA.

Any takings of marine mammals listed as threatened or endangered under the ESA must be authorized under both the ESA and MMPA. The ESA takes are authorized by either an Incidental Take Statement or ITS under Section 7 (for Federal agency actions) or a Section 10 permit (for private citizens).

**Federal Agency Actions**

Section 7 of the ESA requires a Federal authorizing or action agency to consult with NMFS on any actions that might affect listed species. If the agency or NMFS determines an action is likely to adversely affect a species (this would include any taking actions under the MMPA), formal consultation is required. Here, NMFS prepares a ["Biological Opinion"](#) (BO) which assesses whether the action is likely to jeopardize the existence of the species. The BO may include binding and/or discretionary recommendations to reduce impact. An ITS is attached to the BO as an appendix, and it is this statement which allows the incidental take. An ITS cannot be authorized for a listed marine mammal until the MMPA authorization is completed.

**Non-Federal Actions**

A private citizen or State action not involving a Federal agency which would result in an incidental taking of a listed species must be authorized under section 10 of the ESA. The applicant is required to develop a [conservation plan](#) which describes the action, evaluates the effect of the take, and establishes the level of take. The Federal action of NMFS issuing a permit under section 10 is considered an action which itself requires section 7 consultation (in which case NMFS consults with itself).

**LOA/IHA Applications for Public Review**

Applicant	Application	EA/EIS	Documents

2009 Naval Base Ventura County Boom Exercise Drills at Point Mugu, CA	<a href="#">IHA Application</a> [pdf] [1.2 MB]		
2009 ULA Harbor Activities Related to the Delta IV/EEL Vehicle at VAFB, CA	<a href="#">IHA Application</a> [pdf] [463 KB]		<a href="#">Federal Register notice</a> [pdf] [74 KB]
2009 Rice University's Low-Energy Marine Seismic Survey in the Northwest Atlantic Ocean	<a href="#">IHA Application</a> [pdf] [715 KB]	<a href="#">EA</a> [pdf] [1.4 MB]  <a href="#">Draft EA (NSF)</a> [pdf] [202 KB]	<a href="#">Federal Register notice</a> [pdf] [155 KB]
2009 Fireworks Display in the Monterey Bay National Marine Sanctuary	<a href="#">Issued LOA</a> [pdf] [122 KB]		<a href="#">2008 Monitoring Report</a> [pdf] [1.7 MB]
2009 Shell Open-water Marine Survey Program, Chukchi Sea	<a href="#">IHA Application</a> [pdf] [1.8 MB]  <a href="#">» Addendum 1</a> [pdf] [60 KB]  <a href="#">» Addendum 2</a> [pdf] [116 KB]		<a href="#">Public Comments Received</a> [pdf] [6.5 MB]
2009 Scripps Seismic Survey in the Northeastern Pacific Ocean	<a href="#">Modified IHA</a> [pdf] [287 KB]  <a href="#">Signed IHA</a> [pdf] [493 KB]  <a href="#">IHA Application</a> [pdf] [1.3 MB]	<a href="#">EA</a> [pdf] [1.1 MB]  <a href="#">Record of NEPA Compliance</a> [pdf] [14 KB]	<a href="#">Federal Register notice</a> [pdf] [326 KB]
2009 L-DEO Marine Geophysical Survey in the Northeast Pacific Ocean	<a href="#">IHA</a> [pdf] [1.1 MB]	<a href="#">NSF EA</a> [pdf] [228 KB]  <a href="#">L-DEO EA Report</a> [pdf] [3.8 MB]	<a href="#">Public Comments</a> [pdf] [524 KB]  <a href="#">Federal Register notice</a> [pdf] [140 KB]
2008 Navy's Gulf of Mexico Range Complex Training Exercises	<a href="#">LOA Application Addendum</a> [pdf] [719 KB]  <a href="#">LOA</a> [pdf] [1.8 MB]		<a href="#">Proposed Rule</a> [pdf] [193 KB]
2008 Navy's Mariana Islands Range Complex	<a href="#">LOA Application</a> [pdf] [2.9 MB]  <a href="#">LOA Application Addendum</a> [pdf] [573 KB]  <a href="#">Additional Information</a> [pdf] [1.0 MB]		
2008 Navy's Northwest Training Range Complex	<a href="#">LOA</a> [pdf] [2.7 MB]	<a href="#">Draft EIS (all)</a> [pdf] [12.9 MB]	<a href="#">Draft Monitoring Report</a> [pdf] [687 KB]

(NWTRC)	<a href="#">Application Addendum</a> [pdf] [18 KB]	» <a href="#">Vol 1: Draft EIS</a> [pdf] [9.7 MB]  » <a href="#">Vol 2: Draft EIS</a> [pdf] [3.1 MB]	
2008 Navy's East Coast Undersea Warfare Training Range	<a href="#">LOA</a> [pdf] [2.9 MB]		
2008 L-DEO Taiger Southeast Asia Seismic	<a href="#">Modified IHA</a> [pdf] [365 KB]  <a href="#">Issued IHA</a> [pdf] [526 KB]  <a href="#">IHA Application</a> [pdf] [2.7 MB]	<a href="#">Supplemental EA</a> [pdf] [1.0 MB]  <a href="#">EA</a> [pdf] [6.4 MB]	<a href="#">Public Comments</a> [pdf] [12.9 MB]  <a href="#">Public Comment Period Extended</a> [pdf] [60 KB]  <a href="#">Federal Register notice</a> [pdf] [170 KB]
2008 CGGVeritas On-Ice Seismic In Beaufort Sea, AK	<a href="#">IHA</a> [pdf] [177 KB]		<a href="#">Withdrawal Notice</a> [pdf] [48 KB]  <a href="#">Notice of Proposed IHA</a> [pdf] [89 KB]
2008 L-DEO Marine Geophysical Survey in the Southwest Pacific Ocean	<a href="#">Issued IHA</a> [pdf] [574 KB]  <a href="#">IHA Application</a> [pdf] [1.0 MB]	<a href="#">EA</a> [pdf] [1.9 MB]	<a href="#">Federal Register notice</a> [pdf] [123 KB]
2008 Beach Blvd (FL) Bridge Blasting Project	<a href="#">Application</a> [pdf] [3.4 MB]	<a href="#">Supplemental EA</a> [pdf] [1.9 MB]	<a href="#">Federal Register notice</a> [pdf] [98 KB]
2008 PRBO Seabird and Pinniped Research in Central California	<a href="#">Issued IHA</a> [pdf] [202 KB]  <a href="#">IHA Application</a> [pdf] [1.8 MB]	<a href="#">EA/SEA</a> [pdf] [2.9 MB]  <a href="#">FONSI</a> [pdf] [466 KB]	<a href="#">Federal Register notice</a> [pdf] [76 KB]
2009 Naval Air Warfare Center Target and Missile Launch Activities	<a href="#">Issued LOA</a> [pdf] [218 KB]  <a href="#">LOA Application</a> [pdf] [2.0 MB]	<a href="#">EA</a> [pdf] [1.6 MB]  <a href="#">FONSI</a> [pdf] [567 KB]	
2008 Eglin Air Force Base's Navy Explosive Ordnance Disposal School (NEODS)	<a href="#">IHA</a> [pdf] [1.8 MB]	<a href="#">EA</a> [pdf] [77 MB]  <a href="#">Supplemental EA</a> [pdf] [80 KB]	<a href="#">Federal Register notice</a> [pdf] [76 KB]
2008 Navy Operations of Surveillance Towed Array Sensor System Low Frequency Active (SURTASS LFA) Sonar	<a href="#">Application</a> [pdf] [597 KB]  <a href="#">Appendices to Application</a> [pdf] [721 KB]		<a href="#">Annual Report #1</a> [pdf] [1.7 MB]  <a href="#">Final Rule</a> [pdf] [340 KB]  <a href="#">Issued LOAs (2008)</a>

			[pdf] [588 KB] <a href="#">Acoustic Integration Model Report</a> [pdf] [1.3 MB] <a href="#">Final Report</a> [pdf] [2.6 MB]
2008 L-DEO Marine Geophysical Survey in the Gulf of Alaska	<a href="#">IHA</a> [pdf] [1.5 MB]	<a href="#">EA</a> [pdf] [1.8 MB]	<a href="#">Monitoring Report</a> [pdf] [1.8 MB]
2008 VAFB Space Launch Vehicle and Missile Operations	<a href="#">2009 Issued VAFB LOA</a> [pdf] [350 KB] <a href="#">LOA Application</a> [pdf] [817 KB]	<a href="#">Final EA</a> [pdf] [883 KB] <a href="#">FONSI</a> [pdf] [557 KB]	<a href="#">Final Rule</a> [pdf] [85 KB]
2008 San Francisco-Oakland Bay Bridge East Span Seismic Safety Project	<a href="#">IHA Renewal</a> [pdf] [70 KB]		<a href="#">Federal Register notice</a> [pdf] [73 KB]
2008 Navy Cherry Point Range Complex Mission Activities	<a href="#">Issued LOA</a> [pdf] [574 KB] <a href="#">LOA Application</a> [pdf] [1.4 MB] <a href="#">Addendum to LOA Request</a> [pdf] [118 KB]		<a href="#">Final Rule (FRN)</a> [pdf] [146 KB] <a href="#">Monitoring Plan</a> [pdf] [210 KB]
2008 Harbor Activities Related to the Delta IV/EEL Vehicle at VAFB, CA	<a href="#">IHA</a> [pdf] [970 KB]		<a href="#">Federal Register notice</a> [pdf] [73 KB]
2008 Navy's Request for the Keyport Range Complex Expansion and Activities	<a href="#">LOA Addendum</a> [pdf] [68 KB] <a href="#">LOA</a> [pdf] [5.5 MB]		<a href="#">Proposed Rule</a> [pdf] [1.1 MB] <a href="#">Federal Register notice of request</a> [pdf] [67 KB]
2008 Shell Seismic-Alaskan Arctic	<a href="#">IHA</a> [pdf] [1.8 MB]	<a href="#">SEA</a> [pdf] [895 KB]	<a href="#">90-Day Report</a> [pdf] [10.6 MB] <a href="#">Appendices to 90-Day Report</a> [pdf] [7.3 MB]
2008 U.S. Fish and Wildlife Service on Rat Island, Alaska	<a href="#">IHA</a> [pdf] [79 KB]	<a href="#">EA</a> [pdf] [1.4 MB]	<a href="#">Monitoring Report</a> [pdf] [575 KB] <a href="#">Federal Register notice</a> [pdf] [96 KB]
2008 PGS Seismic Survey in the Beaufort Sea, AK	<a href="#">IHA</a> [pdf] [5.8 MB] <a href="#">IHA Addendum</a> [pdf] [359 MB]	<a href="#">SEA</a> [pdf] [895 KB] <a href="#">FONSI</a> [pdf] [920 KB]	<a href="#">Monitoring Report</a> [pdf] [9.1 MB]

2008 ConocoPhillips Alaska Inc. Shallow Hazard and Site Clearance Surveys in Chukchi Sea, AK	<a href="#">IHA</a> [pdf] [356 KB]	<a href="#">SEA</a> [pdf] [895 KB]	<a href="#">90-day Report (Revised March 2009)</a> [pdf] [1.2 MB]  <a href="#">Federal Register notice</a> [pdf] [95 KB]
2008 University of Texas Low-Energy Marine Seismic Survey in the Northeast Pacific Ocean	<a href="#">IHA</a> [pdf] [1.1 MB]	<a href="#">Supplemental EA</a> [pdf] [263 KB]  <a href="#">EA</a> [pdf] [875 KB]	<a href="#">Monitoring Report</a> [pdf] [869 KB]  <a href="#">Federal Register notice</a> [pdf] [149 KB]
2008 Shell Offshore Alaska Drilling	<a href="#">IHA</a> [pdf] [518 KB]		<a href="#">Monitoring Plan</a> [pdf] [583 KB]
2008 BP Seismic Survey in the Liberty Prospect, Beaufort Sea, AK	<a href="#">IHA</a> [pdf] [4.9 MB]  <a href="#">IHA Addendum</a> [pdf] [164 KB]	<a href="#">SEA</a> [pdf] [895 KB]  <a href="#">FONSI</a> [pdf] [665 KB]	<a href="#">Monitoring Report</a> [pdf] [10.1 MB]
2008 ASRC Open Water Seismic Survey in Chukchi Sea, AK	<a href="#">Revised IHA</a> [pdf] [2.5 MB]  <a href="#">IHA</a> [pdf] [1.9 MB]	<a href="#">SEA</a> [pdf] [895 KB]  <a href="#">FONSI</a> [pdf] [858 KB]	<a href="#">Federal Register notice</a> [pdf] [94 KB]
2008 U.S. Navy's Southern California Range Complex (SOCAL)	<a href="#">SOCAL Final Rule</a> [pdf] [949 KB]  <a href="#">2009 SOCAL LOA</a> [pdf] [1.3 MB]  <a href="#">LOA Update</a> [pdf] [178 KB]  <a href="#">LOA</a> [pdf] [5.6 MB]	<a href="#">EIS Vol 1</a> [pdf] [51.9 MB]  <a href="#">EIS Vol 2</a> [pdf] [28.2 MB]  <a href="#">Final SOCAL Mitigation EA</a> [pdf] [524 KB]	<a href="#">Biological Opinion for SOCAL regulations</a> [pdf] [1.6 MB]  <a href="#">Biological Opinion for SOCAL 2009 LOA</a> [pdf] [1.8 MB]  <a href="#">Final SOCAL Monitoring Plan</a> [pdf] [3.4 MB]  <a href="#">Final SOCAL Stranding Response Plan</a> [pdf] [77 KB]  <a href="#">Supplementary Doc (Updated Draft Monitoring Plan)</a> [pdf] [2.2 MB]
2008 Naval Surface Warfare Center Panama City Division	<a href="#">LOA</a> [pdf] [3.1 MB]	<a href="#">Draft EIS</a>	
2008 Navy Virginia Capes Range Complex	<a href="#">Issued LOA</a> [pdf] [579 KB]  <a href="#">LOA Application</a> [pdf] [1.7 MB]  <a href="#">Addendum to</a>		<a href="#">Final Rule (FRN)</a> [pdf] [205 KB]  <a href="#">Monitoring Plan</a> [pdf] [753 KB]

	<a href="#">LOA Request</a> [pdf] [54 KB]		
2008 Navy Jacksonville Range Complex	<a href="#">Issued LOA</a> [pdf] [74 KB]  <a href="#">LOA Application</a> [pdf] [1.6 MB]  <a href="#">Addendum to LOA Request</a> [pdf] [82 KB]		<a href="#">Final Rule (FRN)</a> [pdf] [151 KB]  <a href="#">Monitoring Plan</a> [pdf] [754 KB]
2008 Eglin Air Force Base Surf Zone Exercise off Santa Rosa Island, FL	<a href="#">IHA</a> [pdf] [339 KB]	<a href="#">Supplemental EA for Cumulative Impact Analysis</a> [pdf] [85 KB]	
2008 Northeast Gateway LNG Port Operations in Massachusetts Bay	<a href="#">Revised IHA</a> [pdf] [3.7 MB]  <a href="#">IHA</a> [pdf] [3.9 MB]		<a href="#">MMC Comments</a> [pdf] [175 KB]
2008 Construction Activities for Port of Anchorage Marine Terminal Redevelopment Project	<a href="#">Demolition Plan</a> [pdf] [55.3 MB]  <a href="#">LOA</a> [pdf] [82.3 MB]  <a href="#">IHA</a> [pdf] [14.1 MB]	<a href="#">NEPA Documents</a> [pdf] [2.6 MB]  <a href="#">FONSI/EA</a> [pdf] [2.4 MB]	<a href="#">Final Rule</a> [pdf] [84 KB]  <a href="#">End-of-Season Monitoring Report: July-Nov. 2008</a> [pdf] [11.0 MB]  <a href="#">Monitoring Plan</a> [pdf] [10.9 MB]  <a href="#">Federal Register notice</a> [pdf] [108 KB]
2008 LDEO Marine Geophysical Surveys in the Eastern Tropical Pacific	<a href="#">IHA</a> [pdf] [2.0 MB]	<a href="#">EA</a> [pdf] [2.1 MB]	
2008 Navy's Atlantic Fleet Active Sonar Training (AFAST)	<a href="#">AFAST Final Rule</a> [pdf] [1.9 MB]  <a href="#">2009 AFAST LOA</a> [pdf] [1.3 MB]  <a href="#">LOA</a> [pdf] [4.1 MB]  <a href="#">Addendum to Application</a> [pdf] [21 KB]	<a href="#">Final Mitigation EA</a> [pdf] [623 KB]  <a href="#">Final EIS</a> [pdf] [13.6 MB]  <a href="#">Appendices to Final EIS</a> [pdf] [29.0 MB]	<a href="#">Final Stranding Response Plan</a> [pdf] [83 KB]  <a href="#">Final Monitoring Plan</a> [pdf] [184 KB]  <a href="#">Biological Opinion for AFAST regulations</a> [pdf] [1.6 MB]  <a href="#">Biological Opinion for AFAST 2009 LOA</a> [pdf] [2.5 MB]  <a href="#">After Action Reports (AARs)</a> [pdf] [4.1 MB]



<p><b>2008 Power Plant Operations in Central and Southern California</b></p>	<p><a href="#">RBGS</a> [pdf] [951 KB]</p> <p><a href="#">HBGS</a> [pdf] [832 KB]</p> <p><a href="#">Moss Landing, Morro Bay, and South Bay</a> [pdf] [3.4 MB]</p> <p><a href="#">SGS</a> [pdf] [845 KB]</p> <p><a href="#">LBGS</a> [pdf] [885 KB]</p> <p><a href="#">ESGS</a> [pdf] [903 KB]</p> <p><a href="#">EPS</a> [pdf] [998 KB]</p> <p><a href="#">Mandalay</a> [pdf] [744 KB]</p> <p><a href="#">OBGS</a> [pdf] [1.2 MB]</p> <p><a href="#">Diablo</a> [pdf] [347 KB]</p> <p><a href="#">SONGS</a> [pdf] [1.8 MB]</p>		<p><a href="#">Federal Register notice</a> [pdf] [164 KB]</p>
<p><b>2008 Neptune Deepwater Port Project in Massachusetts Bay</b></p>	<p><a href="#">IHA</a> [pdf] [1.6 MB]</p>		<p><a href="#">Comments from Marine Mammal Commission (MMC)</a> [pdf] [213 KB]</p> <p><a href="#">Federal Register notice</a> [pdf] [91 KB]</p> <p><a href="#">Biological Opinion</a> [pdf] [1.5 MB]</p> <p><a href="#">Assessment of Underwater Noise</a> [pdf] [9.7 MB]</p> <p><a href="#">Supplementary Acoustic Modeling Report</a> [pdf] [22.4 MB]</p> <p><a href="#">Supplementary Biological Effects Report</a> [pdf] [171 KB]</p>
<p><b>2007 Arctic Seismic Comprehensive Report</b></p>			<p><a href="#">Joint Monitoring Program Report 2006-7</a> [pdf] [22.9 MB]</p>

<p>2007 CGGVeritas On-ice Seismic Survey in Smith Bay, Beaufort Sea, AK</p>	<p><a href="#">IHA</a> [pdf] [118 KB]</p> <p><a href="#">Appendix (Map)</a> [pdf] [326 KB]</p>		
<p>2007 CGGVeritas On-ice Seismic Survey in Pt. Thomson area of Beaufort Sea, AK</p>	<p><a href="#">IHA</a> [pdf] [118 KB]</p> <p><a href="#">Appendix (Map)</a> [pdf] [316 KB]</p>		
<p>2007 Shell Offshore On-ice Seismic Survey in Beaufort Sea, AK</p>	<p><a href="#">IHA</a> [pdf] [602 KB]</p>		
<p>2007 Dr. Glenn VanBlaricom Research on Black Abalone at San Nicolas Island, CA</p>	<p><a href="#">IHA</a> [pdf] [162 KB]</p>	<p><a href="#">EA</a> [pdf] [73 KB]</p>	
<p>2007 Navy Ship Shock Trial - USS MESA VERDE</p>	<p><a href="#">LOA</a> [pdf] [653 KB]</p>		<p><a href="#">90-day report</a> [pdf] [706 KB]</p>
<p>2007 Marathon Oil Company Seismic Surveys in the Cook Inlet, AK</p>	<p><a href="#">IHA</a> [pdf] [566 KB]</p>	<p><a href="#">Draft Supplemental EA</a> [pdf] [675 KB]</p>	
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