

Director of MBDA. Final award selections shall be based on the number of points received, the demonstrated responsibility of the applicant, and the determination of those most likely to further the purpose of the MBDA program. Negative audit findings and recommendations and unsatisfactory performance under prior Federal awards may result in an application not being considered for award. The applicant with the highest point score will not necessarily receive the award. Periodic reviews culminating in year-to-date evaluations will be conducted to determine if funding for the project should continue. Continued funding will be at the total discretion of MBDA based on such factors as the MBDC's performance, the availability of funds and Agency priorities.

The MBDC shall be required to contribute at least 15% of the total project cost through non-Federal contributions. To assist in this effort, the MBDC may charge client fees for services rendered. Fees may range from \$10 to \$60 per hour based on the gross receipts of the client's business.

Anticipated processing time of this award is 120 days. Executive order 12372, "Intergovernmental Review of Federal Programs," is not applicable to this program. Federal funds for this project include audit funds for non-CPA recipients. In event that a CPA firm wins the competition, the funds allocated for audits are not applicable. Questions concerning the preceding information can be answered by the contact person indicated above, and copies of application kits and applicable regulations can be obtained at the above address. The collection of information requirements for this project have been approved by the Office of Management and Budget (OMB) and assigned OMB control number 0640-0006.

Awards under this program shall be subject to all Federal laws, and Federal and Departmental regulations, policies, and procedures applicable to Federal financial assistance awards.

#### Pre-Award Costs

Applicants are hereby notified that if they incur any costs prior to an award being made, they do so solely at their own risk of not being reimbursed by the Government. Notwithstanding any verbal assurance that an applicant may have received, there is no obligation on the part of the Department of Commerce to cover pre-award costs.

#### Outstanding Account Receivable

No award of Federal funds shall be made to an applicant who has an outstanding delinquent Federal debt

until either the delinquent account is paid in full, repayment schedule is established and at least one payment is received, or other arrangements satisfactory to the Department of Commerce are made.

#### Name Check Policy

All non-profit and for-profit applicants are subject to a name check review process. Name checks are intended to reveal if any key individuals associated with the applicant have been convicted of or are presently facing criminal charges such as fraud, theft, perjury or other matters which significantly reflect on the applicant's management honesty or financial integrity.

#### Award Termination

The Departmental Grants Officer may terminate any grant/cooperative agreement in whole or in part at any time before the date of completion whenever it is determined that the award recipient has failed to comply with the conditions of the grant/cooperative agreement. Examples of some of the conditions which can cause termination are failure to meet cost-sharing requirements; unsatisfactory performance of the MBDC work requirements; and reporting inaccurate or inflated claims of client assistance. Such inaccurate or inflated claims may be deemed illegal and punishable by law.

#### False Statements

A false statement on an application for Federal financial assistance is grounds for denial or termination of funds, and grounds for possible punishment by a fine or imprisonment as provided in 18 U.S.C. 1001.

#### Primary Applicant Certifications

All primary applicants must submit a completed Form CD-511, "Certifications Regarding Debarment, Suspension and Other Responsibility Matters; Drug-Free Workplace Requirements and Lobbying."

#### Nonprocurement Debarment and Suspension

Prospective participants (as defined at 15 CFR Part 26, § 26.105) are subject to 15 CFR Part 26, "Nonprocurement Debarment and Suspension" and the related section of the certification form prescribed above applies.

#### Drug Free Workplace

Grantees (as defined at 15 CFR Part 26, § 26.605) are subject to 15 CFR Part 26, Subpart F, "Governmentwide Requirements for Drug-Free Workplace

(Grants)" and the related section of the certification form prescribed above applies.

#### Anti-Lobbying

Persons (as defined at 15 CFR Part 28, § 28.105) are subject to the lobbying provisions of 31 U.S.C. 1352, "Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions," and the lobbying section of the certification form prescribed above applies to applications/bids for grants, cooperative agreements, and contracts for more than \$100,000, and loans and loan guarantees for more than \$150,000 or the single family maximum mortgage limit for affected programs, whichever is greater.

#### Anti-Lobbying Disclosures

Any applicant that has paid or will pay for lobbying using any funds must submit an SF-LLL, "Disclosure of Lobbying Activities," as required under 15 CFR Part 28, Appendix B.

#### Lower Tier Certifications

Recipients shall require applications/bidders for subgrants, contracts, subcontracts, or other lower tier covered transactions at any tier under the award to submit, if applicable, a completed Form CD-512, "Certifications Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions and Lobbying" and disclosure form, SF-LLL, "Disclosure of Lobbying Activities." Form CD-512 is intended for the use of recipients and should not be transmitted to DOC. SF-LLL submitted by any tier recipient or subrecipient should be submitted to DOC in accordance with the instructions contained in the award document.

#### Buy American-Made Equipment or Products

Applicants are hereby notified that they are encouraged, to the extent feasible, to purchase American-made equipment and products with funding provided under this program in accordance with Congressional intent as set forth in the resolution contained in Public Law 103-121, Sections 606 (a) and (b).

11.800 Minority Business Development Center

(Catalog of Federal Domestic Assistance)

Dated: October 11, 1995.

Donald L. Powers,

*Federal Register Liaison Officer, Minority Business Development Agency.*

[FR Doc. 95-25468 Filed 10-16-95; 8:45 am]

BILLING CODE 3510-21-P

## National Oceanic and Atmospheric Administration

[I.D. 053095D]

### Small Takes of Marine Mammals Incidental to Specified Activities; Offshore Seismic Activities in Southern California

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of issuance of an incidental harassment authorization.

**SUMMARY:** In accordance with provisions of the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that an Incidental Harassment Authorization to take small numbers of cetaceans by harassment incidental to conducting a three-dimensional (3-D) seismic survey in the Santa Ynez Unit (SYU), located in the western portion of the Santa Barbara Channel, offshore California, in Federal waters has been issued to the Exxon Company, U.S.A., Thousand Oaks, CA, for a period of approximately 2 months.

**EFFECTIVE DATE:** This authorization is effective from October 11, 1995 through December 31, 1995.

**ADDRESSES:** The application, authorization, programmatic environmental assessment (EA), and reference lists are available from the following offices: Marine Mammal Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910 and the Southwest Region, NMFS, 501 West Ocean Blvd. Long Beach, CA 90802.

A copy of the EA for the 3-D seismic survey in the SYU is available from the Minerals Management Service (MMS), Pacific Region, 770 Paseo Camarillo, Camarillo, CA 93010.

**FOR FURTHER INFORMATION CONTACT:** Kenneth Hollingshead, Office of Protected Resources at 301-713-2055, or Irma Lagomarsino, Southwest Regional Office at 310-980-4016.

#### SUPPLEMENTARY INFORMATION:

##### Background

Section 101(a)(5)(A) of the MMPA (16 U.S.C. 1361 *et seq.*) directs the Secretary of Commerce to allow, upon request, the incidental, but not intentional taking of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and regulations are issued.

Permission may be granted if NMFS finds that the taking will have a negligible impact on the species or

stock(s); will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses; and the permissible methods of taking and requirements pertaining to the monitoring and reporting of such taking are set forth.

On April 30, 1994, the President signed Public Law 103-238, The MMPA Amendments of 1994. One part of this law added a new subsection 101(a)(5)(D) to the MMPA to establish an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment for a period of up to 1 year. The MMPA defines "harassment" as:

\* \* \* any act of pursuit, torment, or annoyance which (a) has the potential to injure a marine mammal or marine mammal stock in the wild; or (b) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering.

New subsection 101(a)(5)(D) establishes a 45-day time limit for NMFS review of an application followed by a 30-day public notice and comment period on any proposed authorizations for the incidental harassment of small numbers of marine mammals. Within 45 days of the close of the comment period, NMFS must either issue or deny issuance of the authorization.

On May 11, 1995, NMFS received an application from Exxon requesting an authorization for the harassment of small numbers of certain species of cetaceans incidental to conducting a 3-D seismic survey within the SYU, located in the western portion of the Santa Barbara Channel, off Southern California, in U.S. waters. The species requested are as follows: Blue whale (*Balaenoptera musculus*), fin whale (*Balaenoptera physalus*), sei whale (*Balaenoptera borealis*), humpback whale (*Megaptera novaeangliae*), minke whale (*Balaenoptera acutorostrata*), Bryde's whale (*Balaenoptera edeni*), gray whale (*Eschrichtius robustus*), sperm whale (*Physeter macrocephalus*) and pygmy sperm whale (*Kogia breviceps*).

Exxon's survey will cover an area of approximately 117 mi<sup>2</sup> (303 km<sup>2</sup>) of the outer continental shelf and will require approximately 45-60 days, commencing in late October 1995, to complete. The survey will provide subsurface data that will enable Exxon to more accurately assess the oil and gas reservoirs in order to optimally locate future development wells from existing platforms.

In addition to a press release, notices were published in newspapers of general circulation in Santa Barbara and Ventura Counties, the areas adjacent to the SYU survey area. Also a notice of receipt of Exxon's application and the proposed authorization were published in the Federal Register (June 7, 1995, 60 FR 30066) and a 30-day public comment period was provided on the application and proposed authorization. The comment period closed on July 7, 1995. During the comment period, 9 letters were received. Beginning September 13, 1995, more than 2 months after the comment period closed, NMFS received several additional comments. NMFS is under no obligation to accept comments received after close of the comment period. Nevertheless, NMFS considered the concerns raised by the late comments, and because NMFS believed that valid points had been made, took them into consideration in finalizing the incidental harassment authorization. Comments relative to Exxon's incidental harassment authorization request are discussed below. Other than information necessary to respond to the comments, additional background information on the activity and request can be found in the above-mentioned documents and does not need to be repeated here.

#### Comments and Responses

##### Activity Concerns

*Comment 1.* One commenter had concerns that neither the application nor the proposed authorization addressed the operation of the 3-D seismic array in sufficient detail, thereby preventing a detailed analysis of the impacts. This same commenter questioned the duty cycle and that signals with quick rise and fall times do not allow the animal time to auditorially accommodate the noise.

*Response.* The commenter is correct that there was absent from the discussion any mention of the peak source level for the seismic array. However, like the commenter, NMFS used data provided in Richardson et al. (1991)<sup>1</sup> and Malme et al. (1984). These references indicate that a seismic array would have a sound pressure level (SPL) of between 226 dB and 239 dB (re 1 µPa) at 1 meter (m) from the source. Information not available at the time of receipt of the application indicates that air gun arrays may produce broadband peak source levels as high as 240-250 dB (re 1 µPa), but that much of this total output is directed downward; horizontal

<sup>1</sup> A list of references used in this document can be obtained by writing to the address provided above (see ADDRESSES).

propagation is 230–235 dB (MMS, 1995). Air gun pulse components are strongest around 50–100 Hz, although there is considerable energy in the 20–250 Hz range (Richardson and Malme, 1993 as cited in MMS, 1995). Exxon's contractor for the surveys, who had not been selected at the time of the proposed authorization's publication, has indicated that his seismic arrays will have a maximum output of 215 dB at a distance of 8 m and will result in fewer west-east transects (55 v 64) than estimated in the application and proposed authorization. This array will therefore result in lower sound pressure levels at a given distance from the source than was predicted in the proposal.

While the proposed authorization noted that the 195 dB isopleth would be located approximately 300 ft (91.5 m) from the source, recalculations (based upon the 20LogR transmission loss model), indicate that 195 dB will occur at 246 ft (75 m) from the source. This is the area within which NMFS was originally concerned that temporary or permanent threshold-shift (TTS/PTS) injury potentially could take place (if the animal remained in this relatively small area for any length of time and had the ability to hear in the frequencies of the source) and therefore, in order to protect all species of marine mammals from potential auditory injury, the seismic array must be turned off whenever any marine mammals are sighted within the area and/or must not be powered up whenever marine mammals are within the area. NMFS recognizes that some marine mammals are deep divers and may not be visible on the surface, and that night-time operations will limit observations outside the safety zone. NMFS is confident however, that no marine mammals will remain within this area because (1) The vessel is underway at a speed of approximately 5 knots (9.26 km/hr), less than the normal swimming speed of marine mammals, allowing them sufficient advance notice of the seismic array (if they hear the noise)

and, if it disturbs them, to move away from the source; (2) it is presumed that water turbulence from the vessel, the paravanes and streamer array will tend to deter marine mammals from approaching the source even if they do not hear the source; and (3) the requirement to ramp-up whenever the source is turned on.

The seismic source will consist of dual air gun arrays deployed approximately 120 ft (37.5 m) apart and fired alternately to acquire separate records. Each array will consist of 18 guns of different strengths. Each array will transmit every 8 to 9 seconds (depending upon vessel speed), while the vessel is on a trackline, creating a regular series of strong noise impulses, with short pulses separated by silent periods lasting 5–15 seconds, depending on survey type and depth of target strata. While the science is unclear on the relationship between the duty cycle of a seismic source and the potential for auditory damage to a marine mammal, because of the slow vessel speed, and the requirements to both terminate the source whenever marine mammals are within the safety zone and to employ ramp-up, NMFS believes that the likelihood that a marine mammal would voluntarily remain in close proximity to the source in the presence of pain or annoyance, and thereby be seriously injured by the towed acoustic array, is remote.

*Marine Mammal Species Impacts*

*Comment 2.* Three commenters were concerned that seismic surveys disturbed other marine mammal species in addition to the large whales, especially the harbor seal and the California sea lion. Also, comments were received after the close of the comment period that (1) Seismic arrays produced seismic noise in frequencies up to 1 kHz at levels sufficient to harass odontocetes and pinnipeds and (2) that the correct transmission loss model for the seismic area was not 20LogR but more likely 15 or 17LogR which would affect both designated safety zones and the number of marine mammals

affected. Based upon measurements made in the Beaufort Sea in 1993, one commenter believed that a 160 dB isopleth should extend 27.4 km, not 5.2 km as proposed.

*Response.* NMFS would like to clarify for reviewers that being able to hear certain sounds (noise) does not necessarily mean that a marine mammal is being physiologically stressed (harassed) by that sound. In addition, when noise is frequent, marine mammals may habituate to it once the determination is made that injury or harm does not result.

In order to be detectable by a marine mammal, noise needs to be greater than ambient within the same frequency band as the animal's hearing range. The further outside the species' principal (best) hearing range the noise occurs, the greater (louder) sounds need to be in order to be detectable, bothersome, or injurious.

Seismic airgun arrays emit pulsed energy at frequencies in the 20 to 250 Hz range, with a peak SPL usually between 226 dB and 239 dB (re 1 µPa) at 1 m. Exxon calculated (and the manufacturer has confirmed) that its seismic array would have an SPL of 215 dB at a distance of 8 m from the geometric center of the source (or approximately 1 m from the outside of the array) and based its transmission loss calculations using the 20LogR model, even though Malme et al. (1986) indicated that for offshore California seismic work, a less conservative, 25LogR model was appropriate. The 8 m/20LogR model indicated SPLs would attenuate to approximately 195 dB at 246 ft (75 m), 190 dB at 451 ft (137.5 m), 180 db at 1,476 ft (450 m) and 160 dB at 2.84 nautical miles (nm) (5.2 km). Based upon comments that the 20LogR transmission loss model was not appropriate for coastal California waters, Exxon has again recalculated transmission loss estimates based upon an industry standard of 1 m from geometric center of the source. This model indicates that SPLs would attenuate approximately as follows:

DISTANCE FROM SOURCE (ft/m)

Sound level	20LogR	17LogR	15LogR
195 dB .....	32.9/10 .....	49.2/15 .....	72.1/22
190 dB .....	58.4/17.8 .....	96.8/29.5 .....	152.4/46.5
180 db .....	187.0/57 .....	377.3/115 .....	705.4/215
170 dB .....	587.3/179 .....	1492.8/455 .....	3280.8/1000
160 dB .....	1837.2/560 .....	5643.0/1,720 .....	15419.8/4700

As these distances are significantly less than the distances proposed earlier for

8m/20LogR, NMFS has determined that the more cautious approach, using 8 m/

20LogR model, should be used for this authorization. The commenter who

suggested that 1993 Beaufort Sea survey data should be used acknowledged that his model may not be "completely accurate for the Santa Barbara Channel," but believed it was appropriate for planning purposes. NMFS is unaware of the parameters involved with the Beaufort Sea measurements (e.g., water temperature, depth, bottom topography, ice cover), but in general those characteristics are quite different from those off Southern California.

In the proposed authorization, NMFS stated that dolphin, porpoise, seal, and sea lion hearing is believed to be poor at frequencies less than 1,000 Hz, and thus it is unlikely that the airgun noise would significantly affect them. One commenter correctly pointed out that "significantly affect a marine mammal" is not the appropriate criterion, and that the appropriate criterion is that the activity have a negligible impact. This commenter recommended NMFS provide a more thorough rationale for the determination that species other than large whales will not be taken by harassment incidental to the seismic surveys and that the takings of large whales will be limited to harassment.

Within the pinniped suborder, Schusterman et al. (1967) have determined that none of the species tested to date have exhibited good hearing capabilities at low frequencies, although the northern elephant seal, California sea lion, and harbor seal appear to have some communication ability within the upper low-frequency band (100–1,000 Hz). Underwater audiograms indicate that pinnipeds and odontocetes are particularly sensitive to sound with frequencies in the 2–12 kHz range (Richardson et al., 1991). Seals and sea lions have thresholds of roughly 60 to 80 dB (re 1  $\mu$ Pa) in the range of best hearing. Phocid seals have lower thresholds and a wider frequency range of hearing than otariid seals. Pinniped hearing in sub-1 kHz range varies from 85 dB at 1 kHz to 114 dB at 250 Hz for the California sea lion, 70–85 dB at 1 kHz for the harbor seal, and 95 dB at 1 kHz for the northern fur seal (Richardson et al., 1991). No information has been reported concerning the in-water hearing of northern elephant seals (Richardson et al., 1991), although Schusterman (as cited in Advanced Research Projects Office, 1995) believes they may have mid- to low-frequency hearing ability.

No studies have focused on pinniped reaction to underwater noise from pulsed, seismic arrays in open water (Richardson et al., 1991), as opposed to in-air exposure to continuous noise. However, assuming an SPL needed to be 80–100 dB over its threshold in order to

cause annoyance and 130 dB for injury (pain), as is the current thought based upon human studies (ARPA, 1995), it appears unlikely that pinnipeds would be harassed or injured by low frequency sounds from a seismic source unless they were within close proximity of the array ( $114 \text{ dB}^2 + 80 \text{ dB} = 190 \text{ dB}$  (harassment);  $114 \text{ dB}^2 + 130 \text{ dB} = 244 \text{ dB}$  (injury)). At the upper end of the seismic array's frequency (1 kHz), sufficient energy to cause harassment would occur at a distance of only 1–3 m from the source while TTS injury takes would not occur (70 dB (harbor seal) – 85 dB (California sea lion) + 80 dB = 150–165 dB (harassment); 70 dB (harbor seal) – 85 dB (California sea lion) + 130 dB = 200–215 dB (injury)).

For permanent injury, marine mammals would need to remain in the high noise field for extended periods of time. Existing evidence also suggests that, while they may be capable of hearing sounds from seismic arrays, seals and sea lions appear to tolerate intense pulsatile sounds, without known effect, once they learn that there is no danger associated with the noise (see for example, NMFS/WDFW, 1995). In addition, they will apparently not abandon feeding or breeding areas due to exposure to these noise sources (Richardson et al., 1991) and may habituate to certain noises over time. Since seismic work is common in southern California waters, pinnipeds have previously been exposed to seismic noise, and may not react to it. However, because the evidence indicates that pinnipeds could be incidentally harassed at an SPL of 190 dB or greater, and because Exxon has not requested an incidental harassment authorization for pinnipeds, NMFS will require, as part of the authorization, that a safety zone around the source be established at the 190 dB isopleth or 451 ft (137.5 m) from the source. For added protection, this zone will include the entire area from the stern of the vessel out to the paravanes or approximately 500 ft (152.4 m) from the source.

For odontocetes, based upon the best scientific evidence available, NMFS concludes that the hearing of dolphins, porpoises and other small whales that inhabit the Channel Islands area is poor at frequencies less than 1,000 Hz, and thus it is unlikely that the airgun noise would affect them. While odontocetes can hear sounds over a very wide range of frequencies, from as low as 75–125 Hz in bottlenose dolphins and belugas (Johnson, 1967; Awbrey et al., 1988) to 105–150 kHz in several other species

(Richardson et al., 1991), underwater audiograms indicate that odontocetes hear best at frequencies above 10 kHz. However, none of the seismic source frequencies will be within the dominant frequencies used by odontocetes for vocalization (Richardson et al., 1991).

In the range of best hearing (10 kHz–90 kHz), odontocetes have thresholds in the range of 40 to 60 dB re 1  $\mu$ Pa. In the absence of noise, bottlenose dolphins can detect a signal of about 41–42 dB at various frequencies between 10 kHz and 100 kHz (Johnson, 1967, 1968). For frequencies from 100 Hz to roughly 1000 Hz however, hearing thresholds range from 130 dB to 90 dB re 1  $\mu$ Pa, suggesting the potential for an increased tolerance for low frequency sound.

Other odontocete species appear to have similar threshold frequencies (see Richardson et al., 1991). If one accepts one commenter's premise and Richardson et al.'s (1991) conclusion, that, based upon studies on humans, SPLs of 80–100 dB over threshold are necessary in order to cause annoyance and 130 dB for injury (pain) in odontocetes, most odontocetes would probably need to be almost adjacent to the seismic source, and intentionally remain there, in order to be affected by the seismic array ( $110 \text{ dB}^3 + 80 \text{ dB}$  (harassment) = 190 dB;  $110 \text{ dB} + 130 \text{ dB}$  (injury) = 240 dB). At the upper end of the seismic array's frequency (1 kHz), sufficient energy would not occur that would cause either harassment or TTS injury takes to occur ( $90 \text{ dB} + 80 \text{ dB} = 170 \text{ dB}$  (harassment);  $90 \text{ dB} + 130 \text{ dB} = 220 \text{ dB}$  (injury)).

However, NMFS cautions that testing on the similarity between hearing capabilities between humans and marine mammals still needs to be conducted before more than hypothetical conclusions can be drawn. Similar to pinnipeds, because the evidence indicates that odontocetes (other than the sperm whale) could be incidentally harassed at an SPL of 190 dB or greater, and because Exxon has not requested an incidental harassment authorization for odontocetes (other than the sperm whale), NMFS will require, as part of the authorization, that a safety zone around the source be established at the 190 dB isopleth or 451 ft (137.5 m) from the source. For added protection, this zone will include the entire area from the stern of the vessel out to the paravanes, or approximately 500 ft (152.4 m) from the source.

Therefore, whether or not the above mentioned marine mammal species can hear seismic array sounds, their

<sup>2</sup> Extrapolated from Figure 7.2 in Richardson et al. (1991).

<sup>3</sup> Extrapolated from Figure 7.1 in Richardson et al. (1991).

estimated area of potential harassment and/or auditory damage remains entirely within the area bounded by the vessel, the paravanes and the streamer cables. As Exxon will be required to turn off the array if any species of marine mammal is sighted within this new 500-ft (152.4 m) safety zone, to ramp-up the array slowly (see below), and, if any marine mammals are observed within the 500-ft (152.4-m) safety zone, delay operations until all marine mammals are outside the zone, it is unlikely that pinnipeds or odontocete cetaceans (except sperm whales) will be incidentally harassed by the seismic array and therefore, an authorization is not needed for these species. It can also be presumed that any marine mammals that consistently remain in the vicinity of, or swim along with, the vessel or its equipment, are not being harassed by the vessel or the array.

For mysticete and sperm whales, NMFS has reviewed the evidence and has determined that, because an authorization for serious injury has not been requested for these species, a no-injury safety zone should be established that, based upon the best evidence, would preclude injury. NMFS has determined that injury may occur at a level of 180 dB or greater and has therefore established, through the authorization, a safety zone for these species at a distance of 1,476 ft (450 m) from the source. While there are indications, based upon the Heard Island assessment, that injury may occur at the 160 dB SPL, because the 160 dB SPL is where Malme et al. (1984) noted 10 percent avoidance behavior for gray whales, and injury appears to be about 30 dB higher than the onset of harassment, 160 dB may be an overly conservative level for injury takes. However, because mysticete sensitivity is likely greater than that of odontocetes, 190 dB appears too high for these species. Therefore, a safety zone established at the 180 dB level appears warranted.

*Comment 3.* Several commenters noted that Exxon's survey period was for 60 days but that NMFS' proposed authorization was for a period of 1 year. These commenters recommended either that the period of time not extend past the period when the gray whale migration begins, because the analyses have not been conducted to assess the risk of adversely affecting this migration or that the authorization period end at the same time (December 31st) that the California Air Pollution Control District's (APCD) permit for the survey. One of these commenters also questioned the calculated level of take

of gray whales (and other species), noting that, for gray whales, the level depended upon the timing of the survey and, therefore, might be greater than proposed. For other species, the commenter was concerned that the proposed authorization used average densities along the coast of California and may seriously over- or under-estimate abundance.

*Response.* While one commenter is correct that NMFS originally proposed to issue a 1-year authorization, NMFS has accepted the other commenter's suggestion and will limit the authorization to a period of validity of the APCD permit (December 31, 1995).

In its proposed authorization, NMFS assumed that gray whales could be incidentally harassed if the survey extended into the gray whale migratory period (southbound—mid-December through early February; northbound—mid-February through May) and therefore, included that species under the proposed incidental harassment authorization. Because Barlow (1995) did not observe any gray whales during his summer/fall ship surveys, incidental harassment levels were based upon fall/winter gray whale density calculations found in Forney et al. (1995).

It should be noted that for incidental harassment takings, NMFS does not consider its calculations to be quotas, but only a guide for making the MMPA negligible impact determinations. The two tables in the proposed authorization indicate that, based upon density calculations in Forney et al. (1995), NMFS estimated that, if the survey extended into the latter part of December, on average, 11 gray whales could be within the area at any one time. Because of the method of operation of the seismic array (as explained in the proposed authorization), NMFS has calculated that there could be 341 incidental harassment takings of gray whales, but that this level could increase or decrease somewhat depending upon the time of the year, pod size, and the actual location of the seismic vessel (onshore/offshore). This number may vary also due to the time of the survey in relation to gray whale migration, if the survey ends early, the number of harassments would be lower than it the survey continued into the peak migration period in late January. However, whether the estimate is an under- or over-estimate, with a migration rate of approximately 3–4 mi/hr (5.5–7.7 km/hr), an individual gray whale would be expected to be harassed only during a single-line transect by the vessel and the length of time the animal is exposed to the noise would depend upon its

direction and distance in relation to the seismic vessel's direction and speed and any action the animal might take to avoid the noise. Therefore, although the potential exists that the seismic array noise could result in gray whale harassments, and although Exxon will make every effort to complete the survey prior to the start of the gray whale period, an authorization remains necessary for this species because of the possibility of survey delays.

During their southbound migration, gray whales migrate near shore along the coast of North America from Alaska to central California. In 1993 and 1994, 95.6 percent and 98.7 percent of the southbound gray whales passed within 3 nm (5.6 km) of the Granite Canyon area of central CA (Withrow et al., 1995). After passing Point Conception, California, Rice et al. (1984) believed the majority of the animals took a more direct offshore route across the southern California Bight to northern Baja California. This route passes Santa Rosa and San Nicolas islands, the Tanner and Cortes banks and into Mexican waters (MMS, 1992), well away from Exxon's seismic survey area. Other routes include the nearshore route which follows the mainland coast of California, and the inshore route which passes through the northern Channel Island chain to Santa Catalina or San Clemente Island and on into Mexico. Although seismic array noise may be detectable to those gray whales using the offshore and inshore routes, the noise levels at those distances are not expected to result in any behavioral modification or require animals to deviate from their planned migratory path. Therefore, it is anticipated that only those gray whales on the nearshore route would come into the vicinity of the seismic array and potentially be disturbed by it.

Assuming that nearshore migratory animals would be within 3 nm (5.6 km) (Withrow et al., 1995) of the coastline as in central California, this portion of the population could potentially be subject to disturbance by seismic noise if the survey continued into the migratory period. However, even though NMFS believes that few gray whales will be migrating through the area prior to the time the authorization expires on December 31, 1995, and therefore any harassment takings that do occur would have only a negligible impact on the eastern Pacific stock, in order to ensure that those early migratory gray whales have an unimpeded migratory corridor, NMFS will require, as part of the authorization, that an NMFS biologist be on board the seismic and/or another auxiliary support vessel to monitor gray whale behavior. This individual would

have authority, under the authorization, and with the concurrence of the Regional Director, to modify or terminate the authorization if this individual determines that gray whales are not able to migrate through the SYU area.

*Comment 4.* One commenter was concerned about other potential causes of incidental harassment or other forms of taking by, for example, entanglement in streamer cables, vessel noise, or support vessels and aircraft. Another commenter believed that disturbance by whale watch vessels circling the animals was more likely than disturbance by a seismic array.

*Response.* All vessels create underwater noise that is potentially detectable by marine mammals and, based upon distance between the mammal and the source, may have the potential to cause disturbance to the animal. If owners or operators of these vessels (other than commercial fishing vessels) believe that their vessels may be harassing marine mammals, they should apply for incidental harassment authorizations. However, the operation of one or two seismic and support vessels or aircraft for a 45- to 60-day period is expected to have a negligible impact on marine mammals. Vessel noise is likely to be indistinguishable from the noise caused by the approximately 19,800 round trips annually by vessels, other than commercial-fishing boats, into Los Angeles/Long Beach (LA/LB) harbor. It should be noted that the southwestern portion of the survey area is adjacent to the LA/LB shipping lanes and, therefore, is already subject to anthropogenic noise. To avoid additional harassment authorizations, except in emergency situations, aircraft supplying the seismic vessels are requested to maintain an altitude of 1,000 ft (305 m) until within 3,038 ft (.5 nm; 926 m) of the seismic vessel, unless conducting surveys for marine mammals.

The streamer array, along which the passive hydrophones are located, will consist of 6 cables in parallel. The individual cables will be 9,840 ft (3,000 m) long and spaced 246 ft (75 m) apart, typically towed at a depth of 16.4 to 32.8 ft (5 to 10 m) below the water surface. Hydrophones are attached along the cable and paravanes will be deployed to separate the streamer arrays. The cables have a diameter of 3.5-4 inches (8.9 to 10.2 cm); therefore, it is very unlikely that a marine mammal would become entangled in one. More likely, the presence of the vessel and the water turbulence from the paravane and streamer cables will

provide a zone around the source that marine mammals will not enter. In addition, because of the slow ship speed and resultant water turbulence and noise, it is extremely unlikely that any marine mammals would be struck and thereby injured or killed by the seismic vessel.

#### *Mitigation and Monitoring Concerns*

*Comment 5.* Two commenters were concerned that the criterion for the Acoustic Thermography of Ocean Climate (ATOC) project having a potential to cause harassment has been established at 120 dB, while the 3-D seismic survey's zone of influence (ZOI) was proposed for 160 dB. Another commenter questioned whether some marine mammals would hear the seismic pulse outside the 160 dB isopleth since Tyack (1988) indicated that 10 percent of the gray whales showed behavioral changes at that range.

*Response.* It is presumed that certain species of marine mammals outside the 160 dB isopleth will hear the seismic array. For California waters, Richardson et al. (1991) estimated that airgun sound pulses would remain above typical ambient noise levels (approximately 75-90 dB) at distances greater than 60 mi (100 km) from the source. However, as stated previously, being able to hear certain frequency sounds does not necessarily mean that the marine mammal is being physiologically stressed by that sound.

Based upon Tyack (1988), who indicates that avoidance behavior occurs only at relatively close ranges at decibels greater than 120 dB for continuous noise and 160-170 dB for pulsed sounds such as from airguns, the marine mammal ZOI for seismic work is considered to be the 160 dB isopleth because seismic arrays are pulsed noise generators whereas activities such as ATOC result in continuous sound and therefore has a ZOI set at the 120 dB isopleth. For pulsed sounds such as airgun arrays, Tyack found that fewer than 10 percent of the animals located beyond the 160 dB range would show avoidance behavior to the noise. However, because noise level measurements are logarithmic, extending the potential ZOI to the 150 dB isopleth, as one commenter suggests, may unnecessarily impose a larger ZOI. For reference purposes, it should be noted that ZOI and the terms "zone of potential disturbance" and "zone of potential harassment" used in the proposed authorization, are all considered synonymous.

*Comment 6.* Two commenters expressed opposing concerns regarding

NMFS' proposed mitigation measure that would require Exxon to leave the array on if restarting the array would occur during nighttime hours. A third commenter noted that NMFS' proposed authorization and the Exxon application differed in that the applicant appeared to envision monitoring occurring day and night while NMFS envisioned it to occur only during the day.

*Response.* One of the mitigation measures proposed by NMFS was for the airgun arrays to be shut down during turning and maneuvering, and then be powered up slowly over a 5-minute period. NMFS also proposed that whenever the array was turned off during nighttime that the array not be repowered until daylight. As a result of comments, difficulties with this proposed mitigation measure were identified. If the survey vessel is not authorized to power up the array during nighttime, the duration of the survey could be doubled, resulting in increased total air emissions, fishing preclusion time in the survey area, and costs to the applicant, although the number of marine mammal incidental harassments would probably not increase or decrease substantially. In addition, NMFS has been informed that crew safety concerns will prevent leaving an array powered up whenever work is needed on the rear deck. Unfortunately, while leaving at least partial power to one of the arrays at times when repairs are underway should alert marine mammals to the presence of the array and prevent potential auditory damage, this could also result in additional harassments. It is NMFS' view that ramping up the acoustic array and use of lights to illuminate most of the 500 ft (152.4 m) safety zone, no serious injury of a marine mammal should result during nighttime operations. Therefore, NMFS will not require a mitigation requirement prohibiting turning on an array in darkness but will modify ramp-up to require the array be linearly increased by no more than 6 dB/min above 160 dB. This will increase the ramp-up period from 5 minutes to approximately 15 minutes and will further ensure that marine mammals can vacate the immediate survey area if they so choose, prior to potential onset of a temporary threshold shift injury or less serious harassment.

*Comment 7.* Two commenters recommended a greater distance between the vessel and cetaceans prior to turning on and ramping up of the seismic array. One commenter recommended that the seismic array not be turned on if marine mammals were within the 160 dB isopleth while the other commenter noted that within state

waters mitigation measures prohibit the array from being powered up whenever cetaceans are within 1.2 nm (2 km) of the survey boat.

*Response.* While NMFS has established a safety zone for pinnipeds and odontocetes at 500 ft (152.4 m) and increased the safety zone for mysticetes to 1,476 ft (450 m), there are several difficulties with requiring that the seismic device not be turned on if marine mammals are visible within the 160 dB isopleth. The 160 dB isopleth occurs at a radius of approximately 2.84 nm (5.2 km) from the seismic source and, based upon estimates made by NMFS in the proposed authorization, mysticete/sperm whale harassment incidents are predicted to occur within this zone. Because harassment takings of mysticetes are authorized, and harassment takings of odontocetes and pinnipeds are not expected to occur unless the animals were within the 190 dB isopleth, termination of the seismic source, if marine mammals are seen within the 160 dB isopleth, is not warranted. In addition, if Exxon were required to cease operations each time one of these animals was sighted, or whenever a pinniped and odontocete was sighted (which evidence indicates will not be disturbed by seismic array noise in this area), the survey would result in many data gaps. Depending upon the frequency of shutting off the array and powering it back up, track lines could have serious data gaps requiring all or portions of the track-line to be resurveyed. This would result in increased survey time.

Because harassment takings only are being authorized by this action, and because implementing this recommendation is not likely to result in a lesser impact on marine mammals in the long-term, NMFS does not believe that it is necessary to require this mitigation measure.

A distance of 1.2 nm (2 km) from the survey vessel, while less conservative than a 2.84 nm (5.2 km) safety zone, may be unwarranted and impractical for the same reasons.

In addition, some cetaceans have been reported approaching seismic survey vessels. If true, this would be evidence that certain species of marine mammals either do not hear the array or the noise is not disturbing the animal. NMFS believes that to require this mitigation measure would impose an unnecessary burden on Exxon, since it would be required to wait until all marine mammals voluntarily move away from the area before resuming the survey. Observers however, will be required to record all marine mammal behavior patterns within the 2.84 nm (5.2 km)

ZOI. One purpose of these observations will be to determine whether pinnipeds and odontocetes react to seismic noise. This information will then be available for consideration in future seismic applications.

*Comment 8.* One commenter recommended that NMFS require Exxon to implement monitoring methods similar to that used by seismic and oil development activities in the Beaufort Sea, including an extensive aerial monitoring program.

*Response.* While a monitoring protocol based upon monitoring guidelines recommended for use in the Beaufort Sea will be provided to Exxon, aerial monitoring is an expensive undertaking whose benefit for marine mammals must be weighed against the cost of undertaking the program. In the Beaufort Sea, an extensive monitoring program has been implemented by MMS since 1979 and MMS and NMFS since 1986, particularly since 1991, to determine among other things, whether oil and gas exploration and development activities were having a more than negligible impact on the availability of bowhead whales for subsistence purposes during the fall migration of bowheads. More extensive monitoring requirements were recommended because extensive activities were conducted (i.e., seismic work, actual drilling, icebreaking operations and supply ship and aircraft activities) and there were concerns that such activities might drive bowheads so far offshore that they would become unavailable for subsistence purposes. Secondary use of the monitoring program was to determine the level of harassment takings to bowheads and several other marine mammal species. Aerial monitoring was augmented by vessel observations, but other mitigation, such as ramp up and termination of the source whenever a marine mammal entered a pre-set ZOI was not required as part of the Letter of Authorization. Because (1) the SYU 160 dB ZOI can be adequately monitored visually from the bridge of the survey vessel, (2) aerial marine mammal surveys may result in additional incidental harassment of marine mammals, (3) mitigation measures imposed will ensure no harassment takings of pinnipeds and odontocetes nor any TTS injury to mysticetes will occur, and (4) the relative low abundance of marine mammals in the Southern California Bight (SCB) during this time of year, NMFS does not believe that aerial monitoring of the SYU survey area is warranted solely for monitoring purposes. However, because aerial surveys can provide valuable

information on whale behavior and can provide a platform for better statistical analyses of behavioral modification, NMFS recommends that Exxon incorporate an aerial survey for marine mammals that provides statistically valid results.

*Comment 9.* Two commenters recommended that the observers on board the Exxon vessel either be NMFS employees or be an independent third party contracted by NMFS.

*Response.* Although NMFS will require Exxon to have an NMFS employee on board the vessel after December 15th to observe gray whale behavior, NMFS has neither the staff nor funding to provide observers under small take authorizations. For this authorization, Exxon has contracted an independent firm in southern California to provide NMFS-approved observers. These observers are trained and instructed to record all observations made on marine mammals (and other sea life), including times when marine mammals may enter a designated safety zone. NMFS will require observers to report daily on harassment takes and logbooks be submitted as part of the reporting requirement. These logbooks will be reviewed by NMFS and if violations to either the incidental harassment authorization or the MMPA are found, appropriate action can be taken under existing procedures.

*Comment 10.* Several commenters recommended that (a) because sperm whales and some other species have long dive periods, monitoring commence sooner than 30 minutes prior to turning on the array, (b) that monitoring continue 24 hours daily and (c) NMFS and Exxon supplement the proposed monitoring program with acoustic monitoring capable of detecting submerged sperm whales and other cetacean species.

*Response.* NMFS has modified the monitoring program requirements to make clear that monitoring will be continuous during daylight hours to (a) ensure that no marine mammals enter the safety zones while the array is at or above 160 dB, and (b) commence monitoring 30 minutes prior to the estimated time that the array will reach the 160 dB SPL. As the ramp-up period has been increased to approximately 15 minutes, this will mean a minimum monitoring period of 45 minutes. To ensure adequate monitoring of the safety zone, Exxon will be required, as part of the authorization, to provide Big Eye binoculars for use by the observers.

During nighttime hours, monitoring by the observer needs to be conducted only whenever the array is being powered up. To facilitate observations



within the expanded safety zones, Exxon will provide observers with night-vision binoculars. The 500-ft (91.5 m) safety zone around the array will be required to be visually monitored by the biological observer for a minimum of 30 minutes prior to reaching the 160 dB SPL during ramp up to ensure that no marine mammals are within the zone. After careful consideration, additional visual monitoring by the observer during nighttime is viewed as being neither necessary nor practical, since, as mentioned previously, it is very unlikely that a marine mammal will enter the safety zone(s) and ramping up will allow affected marine mammals adequate time to leave the area. Use of statistical analyses will allow for an estimate of those mysticetes that may enter the 160-dB ZOI during nighttime. However, a crew member will be assigned to monitor the area with instructions to alert the watch stander to the presence of marine mammals and, if necessary, power-down the source to below 160 dB. The biological observer on call for such an event will then be promptly notified.

Because the seismic array is broadband in the same frequencies utilized by the mysticete cetacean species, it is difficult to make continuous acoustic recordings of mysticete vocalizations and to distinguish marine mammal vocalizations from other noises. However, although recordings can be made independent of the survey vessel's hydrophone array during periods between transmission cycles or while turning or maneuvering, because (1) there is an authorization to incidentally harass mysticete whales; (2) the 160 dB ZOI and the 180 and 190 dB safety zones can be adequately monitored visually from the bridge of the survey vessel because of the small areas involved; (3) mitigation measures (including ramp up and termination of the source whenever marine mammals are sighted within their safety zones) imposed will virtually eliminate any harassment takings of pinnipeds and odontocetes and any TTS injury to mysticetes, and (4) the relative low abundance of marine mammals in the SCB during this time of year especially deep diving sperm whales, NMFS does not believe that a sophisticated acoustic monitoring of the SYU survey area is warranted solely for monitoring purposes. However, because acoustic monitoring can provide valuable information on whale behavior (at least acoustic) and an indication of behavioral modification with and without seismic noise, NMFS

recommends that Exxon incorporate an acoustical measurement program for marine mammals.

#### National Environmental Policy Act Concerns

*Comment 11.* Two commenters were concerned that there did not appear to be a recognition of National Environmental Policy Act (NEPA) responsibilities since it was not mentioned in the proposed authorization.

*Response.* The responsibility for reviewing an activity under NEPA belongs primarily to the responsible Federal agency, if that activity is Federal, federally-funded, or federally-permitted. The MMS of the U.S. Department of the Interior has published several documents under NEPA regarding offshore oil and gas leasing and development in the SYU. A list of MMS' NEPA references is available upon request (see ADDRESSES). In addition, an EA on conducting the 3-D seismic survey in the SYU has recently been released by, and is available from, MMS (see ADDRESSES). That document, which has been reviewed and adopted in part (marine mammals) by NMFS, supports NMFS' conclusion that this activity will have a negligible impact on marine mammal stocks and their habitat. An analysis of concerns regarding oil spills and other environmental issues can be found in those documents.

In addition, it should be noted that while each proposed incidental harassment authorization is reviewed independently by NMFS to determine its impact on the human environment, NMFS believes that, because the finding required for incidental harassment authorizations is that the taking (limited to harassment) have only a negligible impact on marine mammals and their habitat, the majority of the authorizations should be categorically excluded (as defined in 40 CFR 1508.4) from the preparation of either an environmental impact statement or an EA under NEPA and section 6.02.c.3(i) of NOAA Administrative Order 216-6 for Environmental Review Procedures (published August 6, 1991). For Exxon's application, NMFS conducted a review of the impacts expected from the issuance of an incidental harassment authorization. NMFS has determined that there will be no more than a negligible impact on marine mammals from the issuance of the harassment authorization provided the mitigation measures required under that authorization are implemented and, based upon this determination and the portions of the MMS EA adopted by

NMFS, has made a finding of no significant impact.

A programmatic EA on issuing incidental harassment authorizations under section 101(a)(5)(D) of the MMPA is available for public review and comment until October 16, 1995 (see ADDRESSES).

#### Other Concerns

*Comment 12.* Several commenters recommended NMFS require the immediate suspension of operations if taking by means other than harassment occurs as a condition of the authorization.

*Response.* NMFS concurs with this recommendation and has made the harassment, injury or death of a marine mammal that is not authorized, or the serious injury or death of a species for which an authorization has been issued, to be a violation of the authorization and making the Incidental Harassment Authorization subject to suspension.

*Comment 13.* One commenter requested NMFS deny the incidental harassment authorization because the commenter is opposed to more oil wells and platforms going into operation, and because the risk of oil spills is significant.

*Response.* NMFS would like to clarify that it does not authorize the activity (i.e., conducting the seismic survey); such authorization is provided by the MMS and is not within the jurisdiction of the Secretary of Commerce. Rather, NMFS authorizes the unintentional incidental harassment of marine mammals in connection with such activities and prescribes methods of taking and other means of effecting the least practicable adverse impact on the species and its habitat.

Furthermore, the 3-D seismic survey does not involve any oil drilling or production activities. The survey merely would provide additional subsurface data that would enable Exxon to more accurately assess the oil-bearing strata to more efficiently develop the field while minimizing the number of wells needed to do so. Geological and geophysical work to gather seismic data is authorized by Exxon's lease. The Exxon SYU project underwent considerable environmental analysis during the implementation of the NEPA process and that analysis identified mitigation measures that would reduce the risk of oil spills to the extent feasible. These mitigation measures have been implemented. Additionally, in complying with recent state and Federal legislation, Exxon has implemented extensive oil spill contingency planning requirements that further reduce the risk of oil spills.



### Summary of Mitigation Measures

To minimize potential serious injury to marine mammals and to limit incidental harassment to the lowest practical level, NMFS will require Exxon to: (1) Ramp up airguns to operating levels at a rate not to exceed 6 dB/min. from 160 dB to operating level at the start of operations or testing, when beginning a new trackline, or any time after the array is powered down below 160 dB; (2) immediately power down the array to a level below 160 dB whenever a marine mammal is observed entering either the 500-ft (152.4 m) safety zone for pinnipeds and odontocetes or the 1,476 ft (450 m) safety zone for mysticetes; (3) if marine mammals are observed within these safety zones, powering up the array above 160 dB must be delayed until all marine mammals are given the opportunity to leave the safety zone; and (4) ensure that the seismic survey's acoustical sounds do not impede the southbound migration of the gray whale. To accomplish this latter mitigation measure, Exxon will be required to notify NMFS if the survey continues after December 15, 1995, in order for an NMFS biologist to board an Exxon vessel to observe gray whale behavior, and to determine if a more than negligible impact on gray whale migration is occurring. At any time the NMFS biologist can no longer make a negligible impact determination for gray whales, Exxon will be required to either terminate the survey or move to an area of the SYU where a negligible impact determination can again be made. In addition, no incidental harassment takings will be authorized after December 31, 1995.

### Monitoring

NMFS will require that the holder of the Incidental Harassment Authorization monitor the impact of seismic activities on the marine mammal populations within the SYU. Monitoring will be conducted by one or more NMFS-approved observers during all daylight hours using Big Eye binoculars and whenever the array is being powered up. At all times, but specifically during routine nighttime surveys when an observer need only be on standby, the crew is to be instructed to keep watch for marine mammals. If any are sighted, the watch-stander is to immediately notify the NMFS-approved observer. If the marine mammal is within the safety zone, the acoustic source must be immediately powered down. To facilitate nighttime sightings within the safety zones, high intensity

lighting will be installed and used to light up these zones.

Visual monitoring will commence a minimum of 30 minutes prior to the estimated time that the array will reach the 160 dB SPL after being turned on and/or powered up. Monitoring will consist of noting the numbers and species of all marine mammals seen within the 2.84 nm (5.2 km) ZOI, their behavior whenever the seismic source is off (speed, direction, submergence time, respiration etc) and any behavioral responses or modifications of these indicators due either to the seismic array or vessel. A report on this monitoring program will be required to be submitted daily by radio, cellular telephone, or fax to NMFS and within 90 days of completion of the survey. In addition, NMFS will require Exxon, as part of the authorization, to undertake additional observations or measurements, or both, necessary to determine the acoustic properties of the seismic source and the impacts of seismic activities on marine mammals. These may include aerial observations and acoustic recordings of marine mammal vocalizations and are subject to the approval of NMFS prior to initiating the survey.

### Consultation

Under section 7 of the Endangered Species Act (16 U.S.C. 1531 et seq.), NMFS has completed consultation on the issuance of this authorization. Based on the best available information, NMFS concludes that the authorization to harass small numbers of cetaceans from conducting a 3-D seismic survey in the SYU under section 101(a)(5)(D) of the MMPA is not likely to jeopardize the continued existence of any listed species. The short-term impact from conducting these surveys may result in a temporary modification in behavior of certain listed and non-listed whale species. While temporary behavioral modifications may be made by these species of cetaceans to avoid seismic noise, this behavioral change is expected to have only a negligible impact on the animals.

### Conclusions

Since NMFS is assured that the taking will not result in more than the incidental harassment (as defined by the MMPA Amendments of 1994) of small numbers of mysticete cetaceans, sperm whales, and possibly pygmy sperm whales; would have only a negligible impact on these cetacean stocks; will not have an unmitigable adverse impact on the availability of these stocks for subsistence uses; and would result in the least practicable impact on the

stocks, NMFS has determined that the requirements of section 101(a)(5)(D) have been met and the authorization can be issued.

For the above reasons, NMFS has issued an incidental harassment authorization for the period ending December 31, 1995, for a 3-D seismic survey within the SYU provided the above mentioned monitoring and reporting requirements are incorporated.

Dated: October 11, 1995.

Patricia A. Montanio,

*Acting Director, Office of Protected Resources,  
National Marine Fisheries Service.*

[FR Doc. 95-25722 Filed 10-16-95; 8:45 am]

BILLING CODE 3510-22-P

### Monterey Bay National Marine Sanctuary Advisory Council; Meetings

**AGENCY:** Sanctuaries and Reserves Division (SRD), Office of Ocean and Coastal Resource Management (OCRM), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce.

**ACTION:** Monterey Bay National Marine Sanctuary Advisory Council Open Meeting.

**SUMMARY:** The Advisory Council was established in December 1993 to advise NOAA's Sanctuaries and Reserves Division regarding the management of the Monterey Bay National Marine Sanctuary. The Advisory Council was convened under the National Marine Sanctuaries Act.

**TIME AND PLACE:** Friday, October 27, 1995, from 8:30 until 4:30. The meeting will be held at the Moss Landing Chamber of Commerce, 8045 Moss Landing Road, Moss Landing, California.

**AGENDA:** General issues related to the Monterey Bay National Marine Sanctuary are expected to be discussed, including an update from the Sanctuary Manager, reports from the working groups, an update on the Sanctuary license plate marketing program, and discussions about enforcement of Sanctuary regulations and strategic planning for the Advisory Council.

**PUBLIC PARTICIPATION:** The meeting will be open to the public. Seats will be available on a first-come, first-served basis.

**FOR FURTHER INFORMATION CONTACT:** Jane Delay at (408) 647-4246 or Elizabeth Moore at (301) 713-3141.

Federal Domestic Assistance Catalog Number 11.429 Marine Sanctuary Program