parties. Submissions (original and 3 copies) shall be addressed to the Board's Executive Secretary at the address below. The closing period for their receipt is September 15, 2009. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period (to September 30, 2009).

A copy of the application will be available for public inspection at the Office of the Executive Secretary, Foreign–Trade Zones Board, Room 2111, U.S. Department of Commerce, 1401 Constitution Avenue, NW, Washington, DC 20230–0002, and in the ''Reading Room'' section of the Board's website, which is accessible via www.trade.gov/ftz. For further information, contact Kathleen Boyce at Kathleen__Boyce@ita.doc.gov or 202–482–1346.

Dated: July 8, 2009.

Andrew McGilvray,

Executive Secretary.

[FR Doc. E9–17076 Filed 7–16–09; 8:45 am]

BILLING CODE 3510–DS–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648–XO71

Incidental Takes of Marine Mammals During Specified Activities; Low-Energy Marine Seismic Survey in the Northeast Pacific Ocean, July 2009

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

ACTION: Notice; issuance of an incidental take authorization.

SUMMARY: In accordance with the Marine Mammal Protection Act (MMPA) regulations, notification is hereby given that NMFS has issued an Incidental Harassment Authorization (IHA) to Scripps Institution of Oceanography (SIO), a part of the University of California San Diego (UCSD), for the take of small numbers of marine mammals, by Level B harassment only, incidental to conducting a marine seismic survey in the Northeast Pacific Ocean during July 2009.

DATES: Effective July 14, 2009, through August 14, 2009.

ADDRESSES: A copy of the IHA and the application are available by writing to P. Michael Payne, Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910–3225 or by telephoning the contact listed here. A copy of the application containing a list of the references used in this document may be obtained by writing to the address specified above, telephoning the contact listed below (see **FOR FURTHER INFORMATION CONTACT**), or visiting the Internet at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.* Documents cited in this notice may be viewed, by appointment, during regular business hours, at the aforementioned address.

FOR FURTHER INFORMATION CONTACT: Howard Goldstein or Ken Hollingshead, Office of Protected Resources, NMFS, 301–713–2289.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of marine mammals by United States citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental taking shall 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 if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined ''negligible impact'' in 50 CFR 216.103 as ''* * * an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival.''

Section 101(a)(5)(D) of the MMPA established 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. Except with respect to certain activities not pertinent here, the MMPA defines ''harassment'' as:

> any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [''Level A harassment'']; or (ii) 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 [''Level B harassment''].

16 U.S.C. 1362(18).

Section 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.

Summary of Request

On March 9, 2009, NMFS received an application from SIO for the taking, by Level B harassment only, of small numbers of marine mammals incidental to conducting, under cooperative agreement with the National Science Foundation (NSF), a low-energy marine seismic survey in the Northeast Pacific Ocean. The funding for the survey is provided by the NSF. The proposed survey will occur in an overall area between approximately 44° and 45° N. and 124.5° and 126° W. within the Exclusive Economic Zone (EEZ) of the U.S.A., and is scheduled to occur from July 14–20, 2009. The survey will use a single Generator Injector (GI) airgun with a discharge volume of 45 in^3. Some minor deviation from these dates is possible, depending on logistics and weather.

The survey is virtually identical to one conducted by SIO in 2007 under an IHA issued in September 2007 (NMFS, 2007). The SIO 2009 IHA application contains minor updates to the project description, updated marine mammal population sizes based on the most recent NMFS annual stock assessment, an assessment of the relevance of the marine mammal density and distribution data contained in the SIO 2007 IHA application based on cruise reports from the NMFS SWFSC ORCAWHALE 2008 cruise, and updated information on effects of airguns on marine mammals (see Appendix A of SIO's application).

Description of the Specified Activity

SIO plans to conduct an ocean bottom seismograph (OBS) deployment and a magnetic, bathymetric, and seismic survey. The planned survey will involve one source vessel, the R/V *Wecoma* (*Wecoma*), and will occur in the Northeast Pacific Ocean off the coast of Oregon.

The purpose of the research program is to record micro-earthquakes in the

forearc to determine whether seismicity on the plate boundary is characteristic of a locked or a freely slipping fault plane. Several earthquakes large enough to be recorded on land-based seismic nets have occurred along this segment in the past several years. The occurrence of ''repeating earthquakes'' (earthquakes with identical waveforms indicating repeated rupture of almost the same fault patch) suggests that this region is at a boundary between a freely slipping and a locked portion of the fault. Some models suggest that the forearc basin north of the seismically active zone may be locked; others suggest that portion of the fault is slipping freely. OBSs have been deployed for a year, and a seismic survey will be used to characterize the shallow sediment structure around the instruments. Also, included in the research is the use of a magnetometer and sub-bottom profiler.

The source vessel, the *Wecoma,* will deploy a single low-energy GI airgun as an energy source (with a discharge volume of 45 in^3) and a 300 m (984 ft), 16 channel, towed hydrophone streamer. Sixteen OBSs were deployed in July and September, 2008. They will continue to acquire data during this cruise, and will be recovered before returning to port. The energy to the GI airgun is compressed air supplied by compressors onboard the source vessel. As the GI airgun is towed along the survey lines, the receiving systems will receive the returning acoustic signals.

The seismic program will consist of approximately 21 km (13 mi) of surveys over each of the 16 OBSs (see Figure 1 of SIO's application). Water depths at the seismic survey locations rang from just less than 100 m (328 ft) to almost 3,000 m (9,842 ft) (see Figure 1 of SIO's application). The GI airgun will be operated on a small grid for approximately two hours at each of the 16 OBS sites. There will be additional seismic operations associated with equipment testing, start-ups, and repeat coverage of any areas where initial data quality is substandard.

All planned geophysical data acquisition activities will be conducted by SIO with on-board assistance by the scientists who have proposed the study. The Chief Scientist is Dr. Anne Trehu of Oregon State University. The vessel will be self-contained, and the crew will live aboard the vessel for the entire cruise.

In addition to the seismic operations of the single GI airgun, a 3.5 and 12 kHz sub-bottom profiler will be used continuously throughout the cruise, and a magnetometer may be run on the transit between OBS locations.

Vessel Specifications

The *Wecoma* has a length of 56.4 m (185 ft), a beam of 10.1 m (33.1 ft), and a maximum draft of 5.6 m (18.4 ft). The ship is powered by a single 3,000-hp EMD diesel engine driving a single, controllable-pitch propeller through a clutch and reduction gear, and an electric 350-hp azimuthing bow thruster. An operations speed of 11.1 km/hour (6 knots) will be used during seismic acquisition. When not towing seismic survey gear, the *Wecoma* cruises at 22.2 km/hour (12 knots) and has a maximum speed of 26 km/hour (14 knots). It has a normal operating range of approximately 13,300 km. The *Wecoma* will also serve as the platform from which vessel-based Marine Mammal Visual Observers (MMVO) will watch for animals before and during GI airgun operations.

Acoustic Source Specifications

Seismic Airguns

During the proposed survey, the *Wecoma* will tow a single GI airgun, with a volume of 45 in^3, and a 300 m long streamer containing hydrophones along predetermined lines. Seismic pulses will be emitted at intervals of 10 seconds. At a speed of 6 knots (11.1 km/hour), the 10 second shot spacing corresponds to a shot interval of approximately 31 m (101.7 ft).

The generator chamber of the GI airgun, the one responsible for introducing the sound pulse into the ocean, is 45 in^3. The larger (105 in^3) injector chamber injects air into the previously-generated bubble to maintain its shape, and does not introduce more sound into the water. The 45 in^3 GI airgun will be towed 21 m (68.9 ft) behind the *Wecoma* at a depth of 4 m (13.1 ft). The sound pressure field of that GI airgun variation at a tow depth of 2.5 m has been modeled by Lamont-Doherty Earth Observatory (L–DEO) in relation to distance and direction for the GI airgun.

As the GI airgun is towed along the survey line, the towed hydrophone array in the 300 m streamer receives the reflected signals and transfers the data on the on-board processing system. Given the relatively short streamer length behind the vessel, the turning rate of the vessel while the gear is deployed is much higher than the limit of five degrees per minute for a seismic vessel towing a streamer of more typical length (much greater than 1 km). Thus, the maneuverability of the vessel is not limited much during operations.

The root mean square (rms) received levels that are used as impact criteria for marine mammals are not directly comparable to the peak (pk or 0-pk) or peak-to-peak (pk-pk) values normally used to characterize source levels of airgun arrays. The measurement units used to describe airgun sources, peak or peak-to-peak decibels, are always higher than the ''root mean square'' (rms) decibels referred to in biological literature. A measured received level of 160 dB re 1 μPa (rms) in the far field would typically correspond to a peak measurement of approximately 170 to 172 dB, and to a peak-to-peak measurement of approximately 176 to 178 dB, as measured for the same pulse received at the same location (Greene, 1997; McCauley *et al.,* 1998, 2000). The precise difference between rms and peak or peak-to-peak values depends on the frequency content and duration of the pulse, among other factors. However, the rms level is always lower than the peak or peak-to-peak level for an airgun-type source.

Received sound levels have been modeled by L–DEO for a number of airgun configurations, including one 45 in^3 GI airgun, in relation to distance from the airgun(s) (see Figure 2 of SIO's application). The model does not allow for bottom interactions, and is most directly applicable to deep water. Based on modeling, estimates of the maximum distances from the GI airgun where sound levels of 190, 180, and 160 dB re 1 μPa (rms) are predicted to be received in deep (>1,000 m) water are shown in this **Federal Register** notice (reprinted from Table 1 of SIO's application). Because the model results are for a 2.5 m tow depth, the distances in Table 1 slightly underestimate the distances for the 45 in^3 GI airgun towed at 4 m depth.

Sub-bottom Profiler

Along with the GI airgun operations, one additional acoustical data acquisition system will be operated throughout the cruise. The ocean floor will be mapped with a Knudsen Engineering Model 320BR 12 kHz and 3.5 kHz sub-bottom profiler (SBP). Multi-beam sonar will not be used.

The Knudsen Engineering Model 320BR SBP is a dual-frequency transceiver designed to operate at 3.5 and/or 12 kHz. It is used to provide data about the sedimentary features that occur below the sea floor. The energy from the sub-bottom profiler is directed downward via a 12 kHz transducer (EDO 323B) or a 3.5 kHz array of 16 ORE 137D transducers in a 4x4 arrangement. The maximum power output of the 320BR is 10 kilowatts for the 3.5 kHz section and 2 kilowatts for the 12 kHz section.

The pulse length for the 3.5 kHz section of the 320 BR is 0.8–24 ms,

controlled by the system operator in regards to water depth and reflectivity of the bottom sediments, and will usually be 12 or 24 ms in this survey. The system produces one sound pulse and then waits for its return before transmitting again. Thus, the pulse interval is directly dependent upon water depth, and in this survey is 4.5–8 seconds. Using the Sonar Equations and assuming 100 percent efficiency in the system (impractical in real world applications), the source level for the 320BR is calculated to be 211 dB re 1 Pam. In practical operation, the 3.5 kHz array is seldom driven at more than 80 percent of maximum, usually less than 50 percent.

Safety Radii

NMFS has determined that for acoustic effects, using acoustic thresholds in combination with corresponding safety radii is an effective way to consistently apply measures to avoid or minimize the impacts of an action, and to quantitatively estimate the effects of an action. Thresholds are used in two ways: (1) To establish a mitigation shut-down or power-down zone, *i.e.,* if an animal enters an area calculated to be ensonified above the level of an established threshold, a sound source is powered down or shut down; and (2) to calculate take, in that a model may be used to calculate the area around the sound source that will be ensonified to that level or above, then, based on the estimated density of animals and the distance that the sound source moves, NMFS can estimate the number of marine mammals that may be ''taken.''

As a matter of past practice and based on the best available information at the time regarding the effects of marine sound compiled over the past decade, NMFS has used conservative numerical estimates to approximate where Level A harassment from acoustic sources begins: 180 dB re 1 μPa (rms) level for cetaceans and 190 dB re 1 μPa (rms) for pinnipeds. A review of the available scientific data using an application of science-based extrapolation procedures (Southall *et al.,* 2007) strongly suggests that Level A harassment (as well as TTS) from single sound exposure impulse events may occur at much higher levels than the levels previously estimated using very limited data. However, for purposes of this proposed action, SIO's application sets forth, and NMFS is using, the more conservative 180 and 190 dB re 1 μPa (rms) criteria. NMFS also considers 160 dB re 1 μPa (rms) as the criterion for estimating the onset of Level B harassment from acoustic sources like impulse sounds used in the seismic survey.

Empirical data concerning the 180 and 160 dB distances have been acquired based on measurements during the acoustic verification study conducted by L–DEO in the northern Gulf of Mexico from May 27 to June 3, 2003 (Tolstoy *et al.,* 2004). Although the results are limited the data showed that radii around the airguns where the received level would be 180 dB re 1 μPa (rms), the safety criterion applicable to cetaceans (NMFS, 2000), vary with water depth. Similar depth-related variation is likely in the 190 dB distances applicable to pinnipeds. Correction factors were developed for water depths 100–1,000 m and <100 m.

The empirical data indicate that, for deep water (>1,000 m), the L–DEO model tends to overestimate the received sound levels at a given distance (Tolstoy *et al.,* 2004). However, to be precautionary pending acquisition of additional empirical data, it is proposed that safety radii during GI airgun operations in deep water will be values predicted by L–DEO's model (see Table 1 below). Therefore, the assumed 180 and 190 dB radii are 23 m (75.5 ft) and 8 m (26 ft), respectively.

Empirical measurements indicated that in shallow water (<100 m), the L–DEO model underestimates actual levels. In previous L–DEO projects, the exclusion zones were typically based on measured values and ranged from 1.3 to 15x higher than the modeled values depending on the size of the airgun array and the sound level measured (Tolstoy *et al.,* 2004). During the proposed cruise, similar factors will be applied to derive appropriate shallow water radii from the modeled deep water radii for the GI airgun (see Table 1 below).

Empirical measurements were not conducted for intermediate depths (100–1,000 m). On the expectation that results will be intermediate between those from shallow and deep water, a 1.5x correction factor is applied to the estimates provided by the model for deep water situations. This is the same factor that was applied to the model estimates during L–DEO cruises in 2003. The assumed 180 and 190 dB radii in intermediate depth water are 35 m (115 ft) and 12 m (39.4 ft), respectively (see Table 1 below).

TABLE 1—PREDICTED DISTANCES TO WHICH SOUND LEVELS ≥190, 180, AND 160 DB RE 1 μPA MIGHT BE RECEIVED IN SHALLOW (<100 M; 328 FT), INTERMEDIATE (100–1,000 M; 328–3,280 FT), AND DEEP (>1,000 M; 3,280 FT) WATER FROM THE SINGLE 45 IN^3 GI AIRGUN USED DURING THE SEISMIC SURVEYS IN THE NORTHEASTERN PACIFIC OCEAN DURING JULY 2009

[Distances are based on model results provided by L–DEO]

Source and volume	Tow depth (m)	Water depth	Predicted RMS distances (m)		
			190 dB	180 dB	160 dB
Single GI airgun 45 in^3	4	Deep (>1,000 m)	8	23	220
		Intermediate (100–1,000 m)	12	35	330
		Shallow (<100 m)	95	150	570

Dates, Duration, and Region of Activity

The *Wecoma* is scheduled to depart from Newport, Oregon, on July 14, 2009, and to return on July 20, 2009. The GI airgun will be used for approximately two hours at each of 16 OBS locations. The program will consist of approximately 7 days of seismic acquisition. The exact dates of the activities may vary by a few days because of weather conditions, repositioning, streamer operations, and adjustments, GI airgun deployment, or the need to repeat some lines if data quality is substandard. The seismic surveys will take place off the Oregon coast in the northeastern Pacific Ocean (see Figure 1 of SIO's application). The overall area within which the seismic surveys will occur is located between approximately 44° and 45° N. and 124.5° and 126° W. (see Figure 1 of SIO's application). The surveys will take place in water depths just less than 100 m and to almost 3,000 m, entirely

within the Exclusive Economic Zone (EEZ) of the U.S.

Comments and Responses

A notice of receipt of the SIO application and proposed IHA was published in the **Federal Register** on May 26, 2009 (74 FR 24799). During the comment period, NMFS received comments from the Marine Mammal Commission (Commission). Following are comments from the Commission and NMFS' responses.

Comment 1: The Commission recommends that the NMFS issue the requested authorization provided that the authorization includes all of the proposed monitoring and mitigation measures to minimize the likelihood of serious injury to the potentially affected marine mammal species.

Response: NMFS concurs with the Commission's recommendations and has included requirements to these effects in the IHA.

Comment 2: The Commission recommends that the NMFS issue the requested authorization provided that the NMFS clarify when the use of night vision devices (NVDs) will be required and provide additional justification for its implied conclusion that observers will be able to achieve a high nighttime detection rate.

Response: NVDs are used at night and during some low-light conditions. Though it depends on the lights on the ship, the sea state, and thermal factors, MMVOs estimated that visual detection is effective out to between 150 and 250 m (492 to 820 ft) using NVDs and about 30 m (98 ft) with the naked eye. Depending on water depth, the relevant safety zones for this survey range from 8 m to 150 m (26 to 492 ft) (see Table 1 above) and NMFS believes that MMVOs are effective at visually detecting marine mammals within these distances.

Marine seismic surveys may continue into night and low-light hours if such segment(s) of the survey is initiated when the entire relevant safety zones are visible and can be effectively monitored. No initiation of airgun array operations is permitted from a shut-down position at night or during low-light hours (such as in dense fog or heavy rain) when the entire relevant safety zone cannot be effectively monitored by MMVOs on duty aboard the *Wecoma.* NMFS has included a requirement to this effect in the IHA issued to SIO.

Comment 3: The Commission recommends that the NMFS issue the requested authorization provided that the authorization requires that operations be suspended immediately, pending review by the NMFS, if a dead or seriously injured marine mammal is found in the vicinity of the operations and the death or injury could have occurred incidental to the seismic survey.

Response: NMFS concurs with the Commission's recommendations and has included a requirement to this effect in the IHA.

Description of Marine Mammals in the Proposed Activity Area

A total of 32 marine mammal species may occur or have been documented to occur in the marine waters off Oregon and Washington, excluding extralimital sightings or strandings (Fiscus and Niggol, 1965; Green *et al.,* 1992, 1993; Barlow, 1997, 2003; Mangels and Gerrodette, 1994; Von Saunder and Barlow, 1999; Barlow and Taylor, 2001; Buchanan *et al.,* 2001; Calambokidis *et al.,* 2004; Calambokidis and Barlow, 2004). The species include 19 odontocetes (toothed cetaceans, such as dolphins), 7 mysticetes (baleen whales), 5 pinnipeds, and sea otters. Six of the species that may occur in the project area are listed under the Endangered Species Act (ESA) as Endangered, including sperm, humpback, sei, fin, blue, and North Pacific right whales. Another species, the Steller sea lion, is listed as Threatened and may occur in the project area.

The study area is located approximately 25 to 110 km (15.5 to 68.4 mi) offshore from Oregon over water depths from just less than 100 m to almost 3,000 m. Two of the 32 species, gray whales and sea otters, are not expected in the project area because their occurrence off Oregon is limited to very shallow, coastal waters. Three other species, California sea lions, Steller sea lions, and harbor seals, are mainly coastal, and would be rare at most at the OBS locations. Information on the habitat, abundance, and conservation status of the species that may occur in the study area is given in Table 2 (below, see Table 2 of SIO's application). Vagrant ringed seals, hooded seals, and ribbon seals have been sighted or stranded on the coast of California (see Mead, 1981; Reeves *et al.,* 2002) and presumably passed through Oregon waters. A vagrant beluga whale was seen off the coast of Washington (Reeves *et al.,* 2002). Those seven species are not addressed in detail in the summaries in SIO's application.

The six species of marine mammals expected to be most common in the deep pelagic or slope waters of the project area, where most of the survey sites are located, include the Pacific white-sided dolphin, northern right whale dolphin, Risso's dolphin, short beaked common dolphin, Dall's porpoise, and northern fur seal (Green *et al.,* 1992, 1993; Buchanan *et al.,* 2001; Barlow, 2003; Barlow and Forney, 2007; Carretta *et al.,* 2007). The fin whale, Dall's porpoise, and the northern elephant seal were the species sighted most often off Oregon and Washington during the ORCAWALE 2008 surveys (NMFS, 2008).

Table 2 below outlines the marine mammal species, their habitat, abundance, density, and conservation status in the proposed project area. Additional information regarding the distribution of these species expected to be found in the project area and how the estimated densities were calculated was included in the notice of the proposed IHA (74 FR 24799, May 26, 2009) and may be found in SIO's application.

TABLE 2—THE OCCURRENCE, HABITAT, REGIONAL ABUNDANCE, BEST AND MAXIMUM DENSITY ESTIMATES, NUMBER OF MARINE MAMMALS THAT COULD BE EXPOSED TO SOUND LEVEL AT OR ABOVE 160DB RE 1μPA, BEST ESTIMATE OF NUMBER OF INDIVIDUALS EXPOSED, AND BEST ESTIMATE OF NUMBER OF EXPOSURES PER MARINE MAMMAL IN OR NEAR THE PROPOSED LOW-ENERGY SEISMIC SURVEY AREA IN THE NORTHEAST PACIFIC OCEAN

[See Tables 2–4 in SIO's application for further detail]

Species	Habitat	Regional population size [e]	Density/1000 km² (best) [b]	Density/1000 km² (max) [c]	Number of indiv. exposed to ≥160 dB	Percent of estimated population exposed to ≥160 dB
Mysticetes						
Eastern Pacific gray whale (*Eschrichtius robustus*).	Coastal	17,752	NA	NA	0	0
North Pacific right whale (*Eubalaena japonica*).	Pelagic and coastal.	NA (Probably less than 100) [f].	0	0	0	0
Humpback whale (*Megaptera novaeangliae*).	Mainly nearshore waters and banks.	1,396	0.69	1.50	1	0.07
Minke whale (*Balaenoptera acutorostrata*).	Pelagic and coastal.	898	0.68	1.1	0	0
Sei whale (*Balaenoptera borealis*)	Primarily offshore, pelagic.	43	0.13	0.5	1	2.33
Fin whale (*Balaenoptera physalus*).	Continental slope, mostly pelagic.	3,454	0.95	1.3	1	0.03
Blue whale (*Balaenoptera musculus*).	Pelagic and coastal.	1,186	0.19	0.4	1	0.08
Odontocetes						
Sperm whale (*Physeter macrocephalus*).	Usually pelagic and deep seas.	2,265	1.39	0.58	1	0.04
Pygmy sperm whale (*Kogia breviceps*).	Deep waters off shelf.	NA	1.24	2.8	1	NA
Dwarf sperm whale (*Kogia sima*)	Deep waters off the shelf.	NA	0	0	0	0
Cuvier's beaked whale (*Ziphius cavirostris*).	Pelagic	2,171	0	0	0	0
Baird's beaked whale (*Berardius bairdii*).	Pelagic	313	1.64	0.60	0	0
Blainville's beaked whale (*Mesoplodon densirostris*).	Slope, offshore	1,024 [g]	0	0	0	0
Hubb's beaked whale (*Mesoplodon carlhubbsi*).	Slope, offshore	1,024 [g]	0	0	0	0
Stejneger's beaked whale (*Mesoplodon stejnegeri*).	Slope, offshore	1,024 [g]	0	0	0	0
Offshore bottlenose dolphin (*Tursiops truncatus*).	Offshore, slope	3,257	0	0	0	0
Striped dolphin (*Stenella coeruleoalba*).	Off continental shelf.	23,883	0.04	0.1	0	0
Short-beaked common dolphin (*Delphinus delphis*).	Shelf and pelagic, seamounts.	487,622	14.14	35	4	<0.01
Pacific white-sided dolphin (*Lagenorhynchus obliquidens*).	Offshore, slope	25,233	24.84	33.2	6	0.02
Risso's dolphin (*Grampus griseus*).	Shelf, slope, seamounts.	12,093	12.91	17.3	3	0.02
Northern right whale dolphin (*Lissodelphis borealis*).	Slope, offshore waters.	15,305	19.39	26.7	5	0.03
False killer whale (*Pseudorca crassidens*).	Pelagic, occasionally inshore.	NA	0	0	0	0
Killer whale (*Orcinus orca*)	Widely distributed.	422 (Offshore)	1.62	2.7	0	0
Short-finned pilot whale (*Globicephala macrorhynchus*).	Mostly pelagic, high-relief topography.	245	0	0	0	0
Harbor porpoise (*Phocoena phocoena*).	Coastal and inland waters.	37,745 (OR/WA)	NA	NA	0	0

TABLE 2—THE OCCURRENCE, HABITAT, REGIONAL ABUNDANCE, BEST AND MAXIMUM DENSITY ESTIMATES, NUMBER OF MARINE MAMMALS THAT COULD BE EXPOSED TO SOUND LEVEL AT OR ABOVE 160DB RE 1μPA, BEST ESTIMATE OF NUMBER OF INDIVIDUALS EXPOSED, AND BEST ESTIMATE OF NUMBER OF EXPOSURES PER MARINE MAMMAL IN OR NEAR THE PROPOSED LOW-ENERGY SEISMIC SURVEY AREA IN THE NORTHEAST PACIFIC OCEAN—Continued

[See Tables 2–4 in SIO's application for further detail]

Species	Habitat	Regional population size [e]	Density/1000 km² (best) [b]	Density/1000 km² (max) [c]	Number of indiv. exposed to ≥160 dB	Percent of estimated population exposed to ≥160 dB
Dall's porpoise (*Phocoenoides dalli*).	Shelf, slope, offshore.	57,549	150.17	250.9	39	0.07
Pinnipeds						
Northern fur seal (*Callorhinus ursinus*).	Pelagic, offshore	721,935 [f]	10	100	3	<0.01
California sea lion (*Zalophus californianus*).	Coastal, shelf ...	238,000	NA	NA	2	<0.01
Harbor seal (*Phoca vitulina richardsi*).	Coastal	24,732 (OR/WA)	13	NA	1	<0.01
Steller sea lion (*Eumetopias jubatus*).	Coastal, shelf	48,519 Eastern U.S. [f].	11	NA	1	<0.01
Northern elephant seal (*Mirounga angustirostris*).	Coastal, pelagic when migrating.	124,000 (CA)	20	200	5	0.01

NA—Data not available or species status was not assessed, CA = California, OR = Oregon, WA = Washington.
[a] U.S. Endangered Species Act: EN = Endangered, T = Threatened, NL = Not listed.
[b] Best estimate as listed in Table 3 of the application.
[c] Maximum estimate as listed in Table 3 of the application.
[d] The numbers of at-sea sightings of California sea lions and northern elephant seals were too small to provide meaningful density estimates (Bonnell *et al.,* 1992); density of northern elephant seals was estimated based on sightings during the ORCAWALE 2008 surveys.
[e] Abundance given for U.S. Eastern North Pacific, or CA/OR/WA stock, whichever is included in the 2007 U.S. Pacific Marine Mammal Stock Assessments (Carretta *et al.,* 2007), unless otherwise stated.
[f] Angliss and Outlaw (2008).
[g] All mesoplodont whales.

Potential Effects on Marine Mammals

Potential Effects of Airguns

The effects of sounds from airguns might result in one or more of the following: Tolerance, masking of natural sounds, behavioral disturbances, temporary or permanent hearing impairment, and non-auditory physical or physiological effects (Richardson *et al.,* 1995; Gordon *et al.,* 2004; Nowacek *et al.,* 2007; Southall *et al.,* 2007). Permanent hearing impairment, in the unlikely event that it occurred, would constitute injury, but temporary threshold shift (TTS) is not an injury (Southall *et al.,* 2007). With the possible exception of some cases of temporary threshold shift in harbor seals, it is unlikely that the project would result in any cases of temporary or especially permanent hearing impairment, or any significant non-auditory physical or physiological effects. Some behavioral disturbance is expected, but this would be localized and short-term.

The notice of the proposed IHA (74 FR 24799, May 26, 2009) included a discussion of the effects of sounds from airguns on mysticetes, odontocetes, and pinnipeds, including tolerance, masking, behavioral disturbance, hearing impairment, and other non-auditory physical effects. Additional information on the behavioral reactions (or lack thereof) by all types of marine mammals to seismic vessels can be found in SIO's application and associated EA.

The notice of the proposed IHA also included a discussion of the potential effects of the sub-bottom profiler. Because of the shape of the beams of these sources and their power, NMFS believes it unlikely that marine mammals will be exposed to either the sub-bottom profiler at levels at or above those likely to cause harassment. Further, NMFS believes that the brief exposure of cetaceans to a few signals from the sub-bottom profiler sonar system is not likely to result in the harassment of marine mammals.

Estimated Take by Incidental Harassment

The notice of the proposed IHA (74 FR 24799, May 26, 2009) included an in-depth discussion of the methods used to calculate the densities of the marine mammals in the area of the seismic survey and the take estimates. Additional information was included in SIO's application. A summary is included here.

All anticipated takes would be ''takes by harassment,'' involving temporary changes in behavior. The monitoring and mitigation measures are expected to minimize the possibility of injurious takes. (However, as noted earlier, there is no specific information demonstrating that injurious ''takes'' would occur even in the absence of the planned monitoring and mitigation measures.) The sections below describe methods to estimate ''take by harassment'', and present estimates of the numbers of marine mammals that might be affected during the proposed seismic program. The estimates of ''take by harassment'' are based on (1) data concerning marine mammal densities (numbers per unit area) obtained during surveys off Oregon and Washington during 1996, 2001, and 2005 (cetaceans), or 1989 to 1990 (pinnipeds) by NMFS Southwest Fisheries Science Center (SWFSC), and (2) estimates of the size of the 160 dB isolpeths where takes could potentially occur from the proposed seismic survey off the coast of Oregon in the northeastern Pacific Ocean.

Extensive systematic aircraft and ship-based surveys have been conducted for marine mammals offshore of Oregon and Washington (Bonnell *et al.,* 1992; Green *et al.,* 1992, 1993;

Barlow 1997, 2003; Barlow and Taylor, 2001; Calambokidis and Barlow, 2004; Barlow and Forney in prep.). The most comprehensive and recent density data available for cetacean species in slope and offshore waters of Oregon are from the 1996, 2001, and 2005 NMFS SWFSC ''ORCAWALE'' or ''CSCAPE'' ship surveys as synthesized by Barlow and Forney (2007). The surveys were conducted up to approximately 550 km (342 mi) offshore from June or July to November or December. Systematic, offshore, at-sea survey data for pinnipeds are more limited. The most comprehensive such studies are reported by Bonnell *et al.* (1992) based on systematic aerial surveys conducted in 1989–1990.

Oceanographic conditions, including occasional El Niño and La Niña events, influence the distribution and numbers of marine mammals present in the Northeast Pacific Ocean, including Oregon, resulting in considerable year-to-year variation in the distribution and abundance of many marine mammal species (Forney and Barlow, 1998; Buchanan *et al.,* 2001; Escorza-Treviño, 2002; Ferrero *et al.,* 2002; Philbrick *et al.,* 2003). Thus, for some species the densities derived from recent surveys may not be representative of the densities that will be encountered during the proposed seismic survey. For this IHA application, cruise reports from the ORCAWALE 2008 surveys (NMFS, 2008) were inspected to assess whether there were any observable changes from the previous surveys of the same area.

Table 3 of SIO's application (reprinted as Table 2 in this **Federal Register** notice) gives the average and maximum densities for each species of cetacean reported off Oregon and Washington, corrected for effort, based on the densities reported for the 1996, 2001, and 2005 surveys (Barlow and Forney, 2007). The densities from those studies had been corrected by the original authors for both detectability bias and availability bias. Detectability bias is associated with diminishing sightability with increasing lateral distance from the trackline. Availability bias refers to the fact that there is <100 percent probability of sighting an animal that is present along the survey trackline.

Table 3 of SIO's application (Table 2 in this **Federal Register** notice) also includes mean density information for three of the five pinniped species that occur off Oregon and Washington and mean and maximum densities for one of those species, from Bonnell *et al.* (1992). Densities were not calculated for the other two species because of the small number of sightings on systematic transect surveys. One of those, the northern elephant seal, was the dominant seal sighted during the ORCAWALE 2008 surveys (29 of 33 pinnipeds sighted off Oregon and Washington), so it was included at a density set at twice that of the northern fur seal, the other species sighted during the ORCAWALE 2008 surveys.

It should be noted that the following estimates of ''takes by harassment'' assume that the surveys will be undertaken and completed; in fact, the planned number of line kms has been increased by 25 percent to accommodate lines that may need to be repeated, equipment testing, etc. As is typical on offshore ship surveys, inclement weather and equipment malfunctions are likely to cause delays and may limit the number of useful line kms of seismic operations that can be undertaken. Furthermore, any marine mammal sightings within or near the designated safety zones will result in the shut-down of seismic operations as a mitigation measure. Thus, the following estimates of the numbers of marine mammals potentially exposed to 160 dB are precautionary, and probably overestimate the actual numbers of marine mammals that might be involved. These estimates assume that there will be no weather, equipment, or mitigation delays, which is highly unlikely.

There is some uncertainty about the representativeness of the data and the assumption used in the calculations. However, the approach used is believed to be the best available approach. Also, to provide some allowance for these uncertainties ''maximum estimates'' as well as ''best estimates'' of the numbers potentially affected have been derived. Best and maximum estimates are based on the average and maximum estimates of densities reported primarily by Barlow and Forney (2007) and Bonnell *et al.* (1992) described above. The estimated numbers of potential individuals exposed are presented below based on the 160 dB re 1 μPa (rms) Level B harassment criterion for all cetaceans and pinnipeds. It is assumed that a marine mammal exposed to airgun sounds this strong might change their behavior sufficiently to be considered ''taken by harassment.''

The number of different individuals that may be exposed to GI airgun sounds with received levels ≥160 dB re 1 μPa (rms) on one or more occasions was estimated by considering the total marine area that would be within the 160 dB radius around the operating airgun array on at least one occasion. The proposed seismic lines do not run parallel to each other in close proximity, which minimizes the number of times an individual mammal may be exposed during the survey. The best estimates in this section are based on the averages of the densities from the 1996, 2001, and 2005 NMFS surveys, and maximum estimates are based on the highest of the three densities. Table 4 of SIO's application and Table 2 of this **Federal Register** notice show the best and maximum estimates of the number of marine mammals that could potentially be affected during the seismic survey.

The number of different individuals potentially exposed to received levels ≥160 dB re 1 μPa (rms) was calculated by multiplying:

- The expected species density, either ''mean'' (*i.e.,* best estimate) or ''maximum,'' times; and
- The area anticipated to be ensonified to that level during GI airgun operations.

The area expected to be ensonified was determined by entering the planned survey lines into a MapInfo Geographic Information System (GIS), using the GIS to identify the relevant areas by ''drawing'' the applicable 160 dB buffer around each seismic line (depending on water and tow depth) and then calculating the total area within the buffers. Areas where overlap occurred (because of intersecting lines) were included only once to determine the area expected to be ensonified. In the proposed survey, there is minimal overlap (5 percent for 160 dB), so virtually no marine mammal would be ensonified above those thresholds more than once.

Applying the approach described above, approximately 208 km^2 (80.3 mi^2) would be within the 160 dB isopleth on one or more occasions during the surveys at all 16 OBS locations. For inshore OBS locations, approximately 60 km^2 (23 mi^2) would be within the 160 dB isopleths; that area was used for calculations for the pinniped species that could occur only at those locations. This approach does not allow for turnover in the mammal populations in the study area during the course of the surveys. That might underestimate actual numbers of individuals exposed, although the conservative distances used to calculate the area may offset this. In addition, the approach assumes that no cetaceans will move away or toward the trackline as the *Wecoma* approaches, in response to increasing sound levels prior to the time the levels reach 160 dB. Another way of interpreting the estimates that follow in Table 3 (below) is that they represent the number of individuals that are expected (in the absence of a seismic program) to occur in the waters that will be exposed to ≥160 dB re 1 μPa (rms).

Table 3 (see below) outlines the species, estimated stock population (minimum and best), and estimated percentage of the stock exposed to seismic pulses in the project area. Additional information regarding the status, abundance, and distribution of the marine mammals in the area and how densities were calculated was included in Table 2 (see above), the notice of the proposed IHA (74 FR 24799, May 26, 2009) and may be found in SIO's application.

TABLE 3—THE ESTIMATES OF THE POSSIBLE NUMBERS OF MARINE MAMMALS EXPOSED TO SOUND LEVELS GREATER THAN OR EQUAL TO 160 DB DURING SIO'S PROPOSED SEISMIC SURVEY OFF OREGON IN JULY 2009. THE PROPOSED SOUND SOURCE IS A SINGLE GI AIRGUN. RECEIVED LEVELS ARE EXPRESSED IN DB RE 1 μPA (RMS) (AVERAGED OVER PULSE DURATION), CONSISTENT WITH NMFS' PRACTICE. NOT ALL MARINE MAMMALS WILL CHANGE THEIR BEHAVIOR WHEN EXPOSED TO THESE SOUND LEVELS, BUT SOME MAY ALTER THEIR BEHAVIOR WHEN LEVELS ARE LOWER (SEE TEXT)

[See Tables 2–4 in SIO's application for further detail]

Species	Number of individuals exposed (best) [1]	Number of individuals exposed (max) [1]	Approx. % Regional Population (best) [2]
Mysticetes			
Eastern Pacific gray whale (*Eschrichtius robustus*)	0	0	0
North Pacific right whale (*Eubalaena japonica*)	0	0	0
Humpback whale (*Megaptera novaeangliae*)	1	2	0.07
Minke whale (*Balaenoptera acutorostrata*)	0	0	0
Sei whale (*Balaenoptera borealis*)	1	0	2.33
Fin whale (*Balaenoptera physalus*)	1	1	0.03
Blue whale (*Balaenoptera musculus*)	1	1	0.08
Odontocetes			
Sperm whale (*Physeter macrocephalus*)	1	8	0.04
Pygmy sperm whale (*Kogia breviceps*)	0	1	NA
Dwarf sperm whale (*Kogia sima*)	0	0	0
Cuvier's beaked whale (*Ziphius cavirostris*)	0	0	0
Baird's beaked whale (*Berardius bairdii*)	0	1	0
Blainville's beaked whale (*Mesoplodon densirostris*)	0	0	0
Hubb's beaked whale (*Mesoplodon carlhubbsi*)	0	0	0
Stejneger's beaked whale *(Mesoplodon stejnegeri)*	0	0	0
Mesoplodon sp. (unidentified) [3]	0	1	0
Offshore bottlenose dolphin (*Tursiops truncatus*)	0	0	0
Striped dolphin (*Stenella coeruleoalba*)	0	0	0
Short-beaked common dolphin (*Delphinus delphis*)	4	9	<0.01
Pacific white-sided dolphin (*Lagenorhynchus obliquidens*)	6	9	0.02
Northern right-whale dolphin (*Lissodelphis borealis*)	5	7	0.02
Risso's dolphin (*Grampus griseus*)	3	4	0.03
False killer whale (*Pseudorca crassidens*)	0	0	NA
Killer whale *(Orcinus orca*)	0	1	0
Short-finned pilot whale (*Globicephala macrorhynchus*)	0	0	0
Harbor porpoise (*Phocoena phocoena*)	0	0	0
Dall's porpoise (*Phocoenoides dalli*)	39	65	0.07
Pinnipeds			
Northern fur seal (*Callorhinus ursinus*)	3	26	<0.01
California sea lion (*Zalophus californianus*)	2	NA	<0.01
Steller sea lion (*Eumetopias jubatus*)	1	NA	<0.01
Harbor seal (*Phoca vitulina richardsi*)	1	NA	<0.01
Northern elephant seal (*Mirounga angustirostris*)	5	52	0.01

NA—Data not available or species status was not assessed.
[1] Best estimate and maximum estimate density are from Table 3 of SIO's application.
[2] Regional population size estimates are from Table 2 (above).

Table 4 of SIO's application (Table 3 in this **Federal Register** notice) shows the best and maximum estimates of the number of exposures and the number of individual marine mammals that potentially could be exposed to greater than or equal to 160 dB re 1 μPa (rms) during the different legs of the seismic survey if no animals move away from the survey vessel.

The ''best'' of the number of individual marine mammals that could be exposed to seismic sounds with received levels greater than or equal to 160 dB re 1 μPa (rms) (but below Level A harassment thresholds) during the survey is shown in Table 4 of SIO's application and Table 3 (shown above). The maximum estimates have been requested by SIO. The ''best estimate'' total includes 4 baleen whale individuals. These estimates were derived from the best density estimates calculated for these species in the area (see Table 4 of SIO's application). In addition, 1 sperm whale (0.35 percent of

the regional population) as well as 0 beaked whales (0 percent of the regional population). Based on the best estimates, most (93 percent) of the marine mammals potentially exposed are dolphins and porpoises; short-beaked common, Pacific white-sided, Northern right-whale, Risso's dolphins and Dall's porpoises are estimated to be the most common species in the area, with best estimates of 4 (<0.01 percent of the regional population), 6 (0.02 percent), 5 (0.03 percent), 3 (0.02 percent), and 39 (0.07 percent) exposed to greater than or equal to 160 dB re μPa (rms), respectively. The remainder of the marine mammals that may be potentially exposed are pinnipeds; Northern fur, harbor, and Northern elephant seals, and Steller sea lions are estimated to be the most common species in the area, with best estimates of 3 (<0.01 percent), 1 (<0.01 percent), 5 (0.01 percent), and 1 (<0.01 percent) exposed to greater than or equal to 160 dB re μPa (rms), respectively. Haul-outs of California sea lions and harbor seals are known to be located in the Newport, Oregon area. All of these numbers are considered small relative to the population sizes of the affected species or stocks.

Potential Effects on Habitat

A detailed discussion of the potential effects of this action on marine mammal habitat, including physiological and behavioral effects on marine fish and invertebrates, was included in the proposed IHA (74 FR 24799, May 26, 2009). Based on the discussion in the proposed IHA notice and the nature of the activities (limited duration), the authorized operations are not expected to have any habitat-related effects that could cause significant or long-term consequences for individual marine mammals or their populations or stocks. Similarly, any effects to food resources are expected to be negligible.

The SIO seismic survey will not result in any permanent impact on habitats used by marine mammals, or on the food sources they use. The main impact issue associated with the proposed activity will be temporarily elevated noise levels and the associated direct effects on marine mammals, as described above.

Subsistence Activities

There is no subsistence hunting for marine mammals in the waters off of the coast of Oregon that implicates MMPA Section 101(a)(5)(D).

Mitigation and Monitoring

Mitigation and monitoring measures for the seismic survey have been developed and refined during previous SIO and NSF-funded seismic studies and associated environmental assessments (EAs), IHA applications, and IHAs. The mitigation and monitoring measures described herein represent a combination of procedures required by past IHAs for other similar projects and recommended best practices in Richardson *et al.* (1995), Pierson *et al.* (1998), and Weir and Dolman (2007). The measures are described in detail below.

Mitigation measures that will be adopted during the proposed survey include:

(1) Speed or course alteration, provided that doing so will not compromise operational safety requirements;

(2) GI airgun shut-down procedures;

(3) Special procedures for situations or species of particular concern, *e.g.,* emergency shut-down procedures for North Pacific right whales, avoidance of concentrations of beaked whales (if visually sighted), and minimization of approaches to slopes, if possible, to avoid beaked whale habitat; and

(4) Additional mitigation measures (see ''additional mitigation measures'' below).

Two other common mitigation measures, airgun array power-down and airgun array ramp-up, are not possible because only one, low-volume GI airgun will be used for the surveys. The thresholds for estimating Level A harassment take are also used in connection with proposed mitigation.

Vessel-Based Visual Monitoring

Marine Mammal Visual Observers (MMVOs) will be based aboard the seismic source vessel and will watch for marine mammals near the vessel during daytime airgun operations and during start-ups of airguns at night. MMVOs will also watch for marine mammals near the seismic vessel for at least 30 minutes prior to the start of airgun operations and after an extended shut down of the airguns. When feasible MMVOs will also make observations during daytime periods when the seismic system is not operating for comparison of sighting rates and animal behavior with vs. without airgun operations. Based on MMVO observations, the GI airgun will be shut down (see below) when marine mammals are detected within or about to enter a designated EZ that corresponds to the 180 or 190 dB re 1 μPa (rms) isopleths, depending on whether the animal is a cetacean or a pinniped. The MMVOs will continue to maintain watch to determine when the animal(s) are outside the EZ, and airgun operations will not resume until the animal has left that EZ. The predicted distances for the 180 and 190 dB EZs are listed according to the water depth in Table 1 above.

During seismic operations off of the coast of Oregon, at least two MMVOs will be based aboard the *Wecoma.* MMVOs will be appointed by SIO with NMFS concurrence. At least one MMVO will monitor the EZ for marine mammals during ongoing daytime GI airgun operations and nighttime startups of the airguns. MMVO(s) will be on duty in shifts no longer than 4 hours duration. The vessel crew will also be instructed to assist in detecting marine mammals and implementing mitigation measures (if practical). Before the start of the seismic survey the crew will be given additional instruction regarding how to do so.

The *Wecoma* is a suitable platform for marine mammal observations. Observing stations will be on the bridge wings, with observers' eyes approximately 6.5 m (21.3 ft) above the waterline and a 180 degree view outboard from either side, on the whaleback deck in front of the bridge, with observers' eyes approximately 7 m (23 ft) above the waterline and approximately 200 degrees view forward, and on the aft control station, with observer's eyes approximately 5.5 m (18 ft) above the waterline and a approximately 180 degree view aft that includes the 40 m (131 ft) (180 dB) radius area around the GI airgun. The eyes of the bridge watch will be at a height of approximately 6.5 m; MMOs will move to the enclosed bridge during any inclement weather.

During the daytime, the MMVO(s) will scan the area around the vessel systematically with reticle binoculars (*e.g.,* 7x50), Big-eye binoculars (25x150), optical range finders, and with the naked eye. During darkness, night vision devices will be available, when required. The MMVOs will be in wireless communication with ship's officers on the bridge and scientists in the vessel's operations laboratory, so they can advise promptly of the need for avoidance maneuvers or GI airgun shut down.

Speed or Course Alteration—If a marine mammal is detected outside the EZ but is likely to enter based on its position and the relative movement of the vessel and animal, and if safety and scientific objectives allow, the vessel speed and/or course may be adjusted to minimize the likelihood of the animal entering the EZ. Typically, during seismic operations, major course and speed adjustments are often impractical when towing long seismic streamers and

large source arrays, but are possible in this case because only one GI airgun and a short streamer will be used.

Shut-down Procedures—The operating airguns(s) will be shut-down if a marine mammal is detected within or approaching the EZ for the single GI airgun source. Following a shut-down, GI airgun activity will not resume until the marine mammal is outside the EZ for the full array. The animal will be considered to have cleared the EZ if it:

- Is visually observed to have left the EZ;
- Has not been seen within the EZ for 15 min in the case of species with shorter dive durations—small odontocetes (*i.e.,* dolphins) and pinnipeds; and
- Has not been seen within the EZ for 30 min in the case of species with longer dive durations—mysticetes and large odontocetes (*i.e.,* sperm, pygmy sperm, dwarf sperm, killer, and beaked whales).

Procedures for Situations or Species of Particular Concern—Special mitigation procedures will be used for certain situations and species as follows:

(1) The GI airgun will be shut-down if a North Pacific right whale is sighted at any distance from the vessel;

(2) To avoid beaked whale habitat, approach to slopes will be minimized, if possible, during the proposed survey. Avoidance of airgun operations over or near submarine canyons has become a standard mitigation measure, but there are none within or near the study area. Four of the 16 OBS locations are on the continental slope, but the GI airgun is low volume and it will operate only for a short time (approximately 2 hours at each location).

(3) If visually sighted, avoidance of concentrations of beaked whales.

Additional Mitigation Measures

(1) To the maximum extent practicable, SIO will schedule seismic operations in inshore or shallow waters during daylight hours, and OBS operations during nighttime hours.

SIO and NSF will coordinate the planned marine mammal monitoring program associated with the seismic survey off the coast of Oregon with applicable U.S. agencies (*e.g.,* NMFS), and will comply with their requirements.

Reporting

MMVO Data and Documentation

MMVOs will record data to estimate the numbers of marine mammals exposed to various received sound levels and to document apparent disturbance reactions or lack thereof. Data will be used to estimate numbers of animals potentially 'taken' by harassment (as defined in the MMPA). They will also provide information needed to order a shutdown of the seismic source when a marine mammal or sea turtle is within or near the EZ.

When a sighting is made, the following information about the sighting will be recorded:

(1) Species, group size, and age/size/sex categories (if determinable); behavior when first sighted and after initial sighting; heading (if consistent), bearing, and distance from seismic vessel; sighting cue; apparent reaction to the seismic source or vessel (*e.g.,* none, avoidance, approach, paralleling, etc.); and behavioral pace.

(2) Time, location, heading, speed, activity of the vessel, sea state, visibility, cloud cover, and sun glare.

The data listed (time, location, etc.) will also be recorded at the start and end of each observation watch, and during a watch whenever there is a change in one or more of the variables.

All observations, as well as information regarding seismic source shut-down, will be recorded in a standardized format. Data accuracy will be verified by the MMVOs at sea, and preliminary reports will be prepared during the field program and summaries forwarded to the operating institution's shore facility and to NSF weekly or more frequently. MMVO observations will provide the following information:

(1) The basis for decisions about shutting down airgun arrays.

(2) Information needed to estimate the number of marine mammals potentially 'taken by harassment.' These data will be reported to NMFS.

(3) Data on the occurrence, distribution, and activities of marine mammals in the area where the seismic study is conducted.

(4) Data on the behavior and movement patterns of marine mammals seen at times with and without seismic activity.

A report will be submitted to NMFS within 90 days after the end of the cruise. The report will describe the operations that were conducted and sightings of marine mammals near the operations. The report will be submitted to NMFS, providing full documentation of methods, results, and interpretation pertaining to all monitoring. The 90-day report will summarize the dates and locations of seismic operations, and all marine mammal sightings (dates, times, locations, activities, associated seismic survey activities). The report will also include estimates of the amount and nature of potential ''take'' of marine mammals by harassment or in other ways.

All injured or dead marine mammals (regardless of cause) will be reported to NMFS as soon as practicable. The report should include species or description of animal, condition of animal, location, time first found, observed behaviors (if alive) and photo or video, if available.

Endangered Species Act (ESA)

Pursuant to Section 7 of the ESA, NSF has consulted with the NMFS, Office of Protected Resources, Endangered Species Division on this seismic survey. NMFS has also consulted internally pursuant to Section 7 of the ESA on the issuance of an IHA under section 101(a)(5)(D) of the MMPA for this activity. On July 13, 2009, NMFS concluded consultation with NMFS and NSF, and issued a Biological Opinion (BiOp), which concluded that the proposed action and issuance of an IHA are not likely to jeopardize the continued existence of North Pacific right, blue, fin, sei, humpback, and sperm whales, and leatherback (*Dermochelys coriacea*), green (*Chelonia mydas*), loggerhead (*Caretta caretta*), hawksbill (*Eretmochelys imbricate*), and olive ridley (*Lepidochelys olivacea*) sea turtles. The BiOp also concluded that designated critical habitat for these species does not occur in the action area and would not be affected by the survey. Relevant Terms and Conditions of the Incidental Take Statement in the BiOp have been incorporated into the IHA.

National Environmental Policy Act (NEPA)

NSF prepared an Environmental Assessment titled ''Marine Seismic Survey in the Northeast Pacific, July 2009.'' NSF's draft EA incorporates an ''Environmental Assessment (EA) of a Planned Low-Energy Marine Seismic Survey by the Scripps Institution of Oceanography in the Northeast Pacific Ocean, July 2009,'' prepared by LGL Limited, Environmental Research Associates, on behalf of NSF and SIO. NMFS adopted NSF's EA and prepared a Finding of No Significant Impact on the issuance of the IHA.

Determinations

NMFS has determined that the impact of conducting the low-energy marine seismic survey in the Northeast Pacific Ocean may result, at worst, in a temporary modification in behavior (Level B harassment) of small numbers of marine mammals. Further, this activity is expected to result in a negligible impact on the affected species or stocks. The provision requiring that the activity not have an unmitigable

impact on the availability of the affected species or stock for subsistence uses is not implicated for this action.

For reasons stated previously in this document, the negligible impact determination is supported by:

(1) The likelihood that, given sufficient ''notice'' through relatively slow ship speed, marine mammals are expected to move away from a noise source that is annoying prior to its becoming potentially injurious;

(2) The fact that cetaceans would have to be closer than 23 m (75 ft) in deep water, 35 m (115 ft) in intermediate depths, and 150 m (492 ft) in shallow water when the GI airgun is in use from the vessel to be exposed to levels of sound (180 dB) believed to have even a minimal chance of causing PTS;

(3) The fact that pinnipeds would have to be closer than 8 m (26 ft) in deep water, 12 m (39 ft) in intermediate depths, and 95 m (312 ft) in shallow water when the GI airgun is in use from the vessel to be exposed to levels of sound (190 dB) believed to have even a minimal chance of causing PTS;

(4) The fact that marine mammals would have to be closer than 220 m (ft) in deep water, 330 m at intermediate depths, and 570 m (ft) in shallow water when the GI airgun is in use from the vessel to be exposed to levels of sound (160 dB) believed to have even a minimal chance at causing TTS; and

(5) The likelihood that marine mammal detection ability by trained observers is high at that short distance from the vessel, enabling the implementation of shut-downs to avoid injury, serious injury, or mortality. As a result, no take by injury or death is anticipated, and the potential for temporary or permanent hearing impairment is very low and will be avoided through the incorporation of the proposed mitigation measures.

While the number of marine mammals potentially incidentally harassed will depend on the distribution and abundance of marine mammals in the vicinity of the survey activity, the number of potential harassment takings is estimated to be small, less than one percent of any of the estimated population sizes, and has been mitigated to the lowest level practicable through incorporation of the measures mentioned previously in this document.

Authorization

As a result of these determinations, NMFS issued an IHA to SIO for conducting a low-energy marine seismic survey in the Northeast Pacific Ocean in July, 2009, including the previously mentioned mitigation, monitoring, and reporting requirements.

Dated: July 13, 2009.

James H. Lecky,

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

[FR Doc. E9–17067 Filed 7–16–09; 8:45 am]

BILLING CODE 3510–22–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

RIN 0648–XF79

Marine Mammals and Endangered Species; National Marine Fisheries Service File No. 932–1905; U.S. Fish and Wildlife Service File No. MA–009526

AGENCIES: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce; Fish and Wildlife Service, Interior.

ACTION: Notice; issuance of permit.

SUMMARY: Notice is hereby given that the NMFS Marine Mammal Health and Stranding Response Program (MMHSRP), Silver Spring, MD (Dr. Teri Rowles, Principal Investigator), has been issued a permit to conduct enhancement and research activities on marine mammals.

ADDRESSES: The permit and related documents are available for review upon written request or by appointment in the following offices:

Permits, Conservation and Education Division, Office of Protected Resources, NMFS, 1315 East–West Highway, Room 13705, Silver Spring, MD 20910; phone (301) 713–2289; fax (301) 713–0376; and

U.S. Fish and Wildlife Service, Division of Management Authority, 4401 North Fairfax Drive, Room 212, Arlington, VA 22203 (1–800–358–2104).

FOR FURTHER INFORMATION CONTACT: Amy Sloan or Kristy Beard, NMFS Office of Protected Resources, (301) 713–2289.

SUPPLEMENTARY INFORMATION: The subject permit has been issued under the authority of the Marine Mammal Protection Act of 1972, as amended (MMPA; 16 U.S.C. 1361 *et seq.*); the regulations governing the taking and importing of marine mammals (50 CFR parts 18 and 216); the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*); the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR parts 17 and 222–226); and the Fur Seal Act of 1966, as amended (16 U.S.C. 1151 *et seq.*).

Permit No. 932–1905/MA–009526 authorizes the MMHSRP to: (1) Carry out response, rescue, rehabilitation, and release of threatened and endangered marine mammals under NMFS jurisdiction [Cetacea and Pinnipedia (excluding walrus)] under sections 109(h) and 112(c) and Title IV of the MMPA; and carry out such activities as enhancement under section 10 the ESA; (2) Conduct health–related scientific research studies on marine mammals and marine mammal parts under NMFS jurisdiction under section 104 of the MMPA and section 10 of the ESA; (3) Conduct Level B harassment on marine mammals under NMFS and U.S. Fish and Wildlife Service (USFWS) jurisdiction [West Indian manatee (*Trichechus manatus*), walrus (*Odobenus rosmarus*), polar bear (*Ursus maritimus*), and sea otters (*Enhydra lutris*)] incidental to all MMHSRP activities in the United States; (4) Collect, salvage, receive, possess, transfer, import, export, analyze, and curate marine mammal specimens under NMFS jurisdiction for purposes delineated in numbers (1) and (2) above; and (5) Salvage (from dead stranded animals), receive, possess, transfer, import, export, analyze, and curate marine mammal specimens under USFWS jurisdiction [including dugong and manatees (Sirenia), walrus, polar bear, marine otter (*Lontra felina*), sea otter] for purposes consistent with Title IV of the MMPA and section 10 of the ESA. The permit has been issued for a 5-year period.

The NMFS MMHSRP has prepared a Final Programmatic Environmental Impact Statement (FPEIS) in compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321*et seq.*), which covers the entirety of the MMHSRP program's activities, including those covered by the issued permit. The FPEIS was published on March 6, 2009 (74 FR 9817). The ROD was signed on April 21, 2009. The FPEIS is available on the following web site: *http://www.nmfs.noaa.gov/pr/health/eis.htm*.

Issuance of this permit, as required by the ESA, was based on a finding that such permit: (1) Was applied for in good faith; (2) will not operate to the disadvantage of such endangered species; and (3) is consistent with the purposes and policies set forth in section 2 of the ESA.