safety radius and, based on its position and the relative motion, is likely to enter the safety radius, the vessel's speed and/or direct course may, when practical and safe, be changed in a manner that also minimizes the effect to the planned science objectives. The marine mammal activities and movements relative to the seismic vessel will be closely monitored to ensure that the animal does not approach within the safety radius. If the animal appears likely to enter the safety radius, further mitigative actions will be taken, i.e. either further course alterations or shut down of the airguns.

Shut-down Procedures - If a marine mammal is detected outside the safety radius but is likely to enter the safety radius, and if the vessel's course and/or speed cannot be changed to avoid having the animal enter the safety radius, the airguns will be shut down before the animal is within the safety radius (10 m (33 ft) for pinnipeds (190–dB isopleth) or 40 m (131 ft) for cetaceans (180–dB isopleth)). Likewise, if a marine mammal is already within the safety radius when first detected, the airguns will be shut down immediately.

Airgun activity will not resume until the animal has cleared the safety radius. The animal will be considered to have cleared the safety radius if it is visually observed to have left the safety radius, or if it has not been seen within the radius for 15 min (small odontocetes and pinnipeds) or 30 min (mysticetes and large odontocetes, including sperm, pygmy sperm, dwarf sperm, beaked, and bottlenose whales).

Ramp-up Procedures – A ''ramp-up'' procedure will be followed when the airguns begin operating after a period without airgun operations. The two GI guns will be added in sequence 5 minutes apart. During ramp-up procedures, the safety radius for the two GI guns will be maintained.

Night Operations – At night, vessel lights and/or night vision devices (NVDs) could be useful in sighting some marine mammals at the surface within a short distance from the ship (within the safety radii for the two GI guns in deep water). Start up of the airguns will only occur in situations when the entire safety radius is visible with vessel lights and NVDs.

Reporting

A report will be submitted to NMFS within 90 days after the end of the cruise. The end of the northeastern Indian Ocean cruise is predicted to occur between July 16 and August 13, 2007. The report will describe the operations that were conducted and the marine mammals that were detected 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, marine mammal sightings (dates, times, locations, activities, associated seismic survey activities), and estimates of the amount and nature of potential ''take'' of marine mammals by harassment or in other ways.

Endangered Species Act

Under section 7 of the Endangered Species Act (ESA) the NSF has begun consultation on this proposed seismic survey. NMFS will also consult on the issuance of an IHA under section 101(a)(5)(D) of the MMPA for this activity. Consultation will be concluded prior to a determination on the issuance of the IHA.

National Environmental Policy Act (NEPA)

NSF prepared an Environmental Assessment of a Planned Low-Energy Marine Seismic Survey by the Scripps Institution of Oceanography in the Northeast Indian Ocean, May July 2007. NMFS will either adopt NSF's EA or conduct a separate NEPA analysis, as necessary, prior to making a determination on the issuance of the IHA.

Preliminary Determinations

NMFS has preliminarily determined that the impact of conducting the seismic survey in the northeast Indian Ocean may result, at worst, in a temporary modification in behavior (Level B Harassment) of small numbers of 29 species of cetaceans. 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 adverse impact on the availability of the affected species or stock for subsistence uses does not apply for this proposed action.

For reasons stated peviously in this document, this determination is supported by: (1) the likelihood that, given sufficient notice through relatively slow ship speed and rampup, marine mammals are expected to move away from a noise source that is annoying prior to its becoming potentially injurious; (2) the fact that marine mammals would have to be closer than 40 m from the vessel to be exposed to levels of sound (180 dB) believed to have even a minimal chance of causing TTS; and (3) the likelihood that marine mammal detection ability by trained observers is high at that short distance from the vessel. 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 potential incidental harassment takes 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 a few 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.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to SIO for conducting a low-energy seismic survey in the Indian Ocean from May - August, 2007, provided the previously mentioned mitigation, monitoring, and reporting requirements are incorporated.

Dated: April 4, 2007.

David Cottingham,

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

[FR Doc. E7–6750 Filed 4–9–07; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 010207B]

Small Takes of Marine Mammals Incidental to Specified Activities; Seismic Surveys in the Beaufort and Chukchi Seas off Alaska

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

ACTION: Notice of receipt of application and proposed incidental take authorization; request for comments.

SUMMARY: NMFS has received an application from Shell Offshore, Inc. (SOI) for an Incidental Harassment Authorization (IHA) to take small numbers of marine mammals, by harassment, incidental to conducting open-water offshore exploratory drilling on Outer Continental Shelf (OCS) oil lease blocks in the Beaufort Sea off Alaska. Under the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to

issue an IHA to SOI to incidentally take, by Level B harassment, small numbers of several species of marine mammals between mid-July and November, 2007, incidental to conducting this drilling program.

DATES: Comments and information must be received no later than May 10, 2007.

ADDRESSES: Written comments on the application should be addressed 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. The mailbox address for providing email comments is *PR1.010207B @noaa.gov*. Comments sent via e-mail, including all attachments, must not exceed a 10–megabyte file size. A copy of the application (containing a list of the references used in this document) may be obtained by writing to this address or by telephoning the contact listed here and are also available at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm#iha*.

Documents cited in this document, that are not available through standard public library access methods, may be viewed, by appointment, during regular business hours at this address.

FOR FURTHER INFORMATION CONTACT: Kenneth Hollingshead, Office of Protected Resources, NMFS, (301) 713–2289 or Brad Smith, NMFS, Alaska Regional Office 907–271–3023.

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 U.S. 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.

An authorization shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and 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 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].

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 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

Open Water Exploration Drilling

SOI is planning to utilize two drilling units during the 2007 open water season in order to drill priority exploration targets on their U.S. Minerals Management Services (MMS) OCS leases in the U.S. Beaufort Sea. The highest priority exploratory targets for 2007 are located offshore of Pt. Thomson and Flaxman Island, on the leaseholds referred to as Sivulliq and Olympia, in Camden Bay. However, given the locations of open water conditions during 2007 and permit/authorization stipulations, SOI may elect to re-prioritize well locations on one, or more of their OCS leases (see Figure 1 in SOI's IHA application). Re-prioritizing of drilling prospects due to ice may cause drilling to occur at other Beaufort Sea OCS leases held by SOI, but only those that have been pre-cleared to the satisfaction of MMS. It is anticipated that the drilling vessels will each drill up to two wells during the open water season of 2007.

The drilling units proposed for SOI's 2007 OCS drilling program include the semi-submersible drill ship, the *Kulluk*, and a floating drill ship, the *Frontier Discoverer* (*Discoverer*). Both the *Kulluk* and *Discoverer* will be mobilized into the Beaufort Sea as soon as ice conditions permit. Each will be accompanied by up to two Arctic-class, foreign-flagged, ice management vessels which will also serve duty as anchor tenders, and other drill ship support tasks. These ice management vessels are: the *M/V Jim Kilabuk*, the *M/V Vladimir Ignatjuk*, the *M/V Kapitan Dranitsyn*, the *M/V Fennica-Nordica*,; and the *M/V Tor Viking*.

Additional support vessels, such as the *M/V Peregrine* and aircraft will also be used during the drilling season, assisting with crew change support and provision re-supply. Oil spill response vessels (OSRV) will accompany the drill ships, at all times while drilling occurs through prospective hydrocarbon-bearing zones. Projected dates for arrivals of OSRVs on location in the Beaufort Sea will be known around the end of April/May 2007. An ice-class, purpose built OSRV is being constructed for SOI and will be deployed in the Beaufort Sea for this drilling program. Potential OSRV support includes the *Arctic Endeavor* barge and associated tug; and an OSR tanker that will be staged in proximity to both drilling units. Specifications for the *Kulluk*, *Discoverer* and prospective ice management vessels are included in SOI's IHA application.

The *Kulluk* is currently moored in McKinley Bay, Yukon Territory, Canada. Ice management support (*Ignatjuk* and *Fennica-Nordica*) for the *Kulluk* are projected to enter the Beaufort Sea during mid-late June 2007 traveling west to east toward McKinley Bay. The *Kulluk* is projected to be towed into the Alaskan Beaufort Sea during July 2007 by one of the arctic class ice management vessels, which travel through the Chukchi and Beaufort Seas before arriving in McKinley Bay for mobilization. The *Discoverer* is currently docked in Singapore and will travel to Kotzebue for re-supply before mobilizing into the Beaufort Sea, accompanied by ice management vessels. The *Dranitsyn* will provide ice management support for the *Discoverer*. Both ships are expected to depart Kotzebue in early July before entering the Beaufort Sea.

These vessels will traverse the Alaskan Beaufort from west to east and are projected to begin the traverse before July 1, 2007. These vessels should free the *Kulluk* and ready it for mobilization to the Alaskan Beaufort Sea by late July or early August 2007. The *Tor Viking* is projected to enter the Beaufort Sea during mid-late June 2007 and arrive on location of the Sivulliq prospect in late June. The *Kilabuk* will provide support and supply to the *Kulluk*. Toward the

end of July, an additional ice management vessel (the *Dranitsyn*) will escort the *Discoverer* from the Bering Sea northward through the Chukchi and Beaufort Seas to drilling prospects where ice conditions allow safe operating access. At the conclusion of open water operations around the end of October 2007, SOI expects to demobilize both the *Kulluk* and the *Discoverer* before the end of November 2007. The *Kulluk* will be accompanied by two ice management vessels back to the Canadian Beaufort Sea (McKinley Bay), while two ice management vessels will accompany the *Discoverer* west through the Beaufort Sea and south through the Chukchi Sea.

Pre-Feasibility Geotechnical Borehole Drilling

To obtain geotechnical data for pre-feasibility analyses of shallow sub-sea sediments, SOI plans to drill as many as eight boreholes, each up to 400 ft (122 m) in depth. SOI notes that these boreholes will be completed at depths more than one mile (1.6 km) above any of the prospective subsurface hydrocarbon- bearing zones in the Sivulliq prospect (see Figure 1 in SOI's application). Three potential development locations will be investigated at Sivulliq, deeper locations along a prospective pipeline access corridor will also be investigated. This operation is expected to take approximately one week per borehole.

The geotechnical survey component of the program will be conducted by a vessel typically over 200 ft (61 m) in length, with a moon-pool and drilling rig approximately at mid-ships, A-frame at the stern, helideck above the bow/bridge and accommodations for about 40 technical staff and crew. A typical geotechnical coring vessel is illustrated in Attachment A of SOI's MMPA application.

The geotechnical drilling is expected to begin during July 2007. Including weather, ice conditions and logistics/resupply it is anticipated that geotechnical borings may require up to 8 weeks within a 12–week time-frame finished by the end of October 2007. The proposed geotechnical locations include the Sivulliq prospect and the Pt. Thomson to Sivulliq prospective pipeline access corridor.

Marine Mammals

A total of three cetacean species (bowhead, gray, and beluga whales), three species of pinnipeds (ringed, spotted, and bearded seal), and one marine carnivore (polar bear) are known to occur in or near the proposed drilling areas in the U.S. Beaufort Sea. Other extralimital species that occasionally occur in very small numbers in this portion of the U.S. Beaufort Sea include the harbor porpoise and killer whale. However, because of their rarity in this area, they are not expected to be exposed to, or affected by, any activities associated with the drilling, and are not discussed further. The polar bear is under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS) and is not discussed further in this document. The species and numbers of marine mammals likely to be found within this portion of the Beaufort Sea are listed in Table 4–1 in SOI's IHA application.

A description of the biology and distribution of the marine mammal species under NMFS' jurisdiction can be found in SOI's IHA application, MMS' 2006 PEA for Arctic seismic activities, the NMFS/MMS Draft Programmatic EIS for Arctic Seismic in the Beaufort and Chukchi seas and several other documents (e.g., MMS Final EA for Lease Sale 202, Army Corps of Engineers for the Northstar Project, 1999). Information on these species can be found also in the NMFS Stock Assessment Reports. The 2006 Alaska Stock Assessment Report is available at: *http://www.nmfs.noaa.gov/pr/sars/region.htm* Please refer to these documents for information on these potentially affected marine mammal species.

Potential Effects of Seismic Surveys on Marine Mammals

Disturbance by drilling sounds is the principal means of taking by this activity. Drilling vessels, support vessels including ice management vessels, and aircraft may provide a potential second source of noise. The physical presence of vessels and aircraft could also lead to non-acoustic effects on marine mammals involving visual or other cues.

As outlined in previous NMFS documents, the effects of noise on marine mammals are highly variable, and can be categorized as follows (based on Richardson *et al.*, 1995):

(1) The noise may be too weak to be heard at the location of the animal (i.e., lower than the prevailing ambient noise level, the hearing threshold of the animal at relevant frequencies, or both);

(2) The noise may be audible but not strong enough to elicit any overt behavioral response;

(3) The noise may elicit reactions of variable conspicuousness and variable relevance to the well being of the marine mammal; these can range from temporary alert responses to active avoidance reactions such as vacating an area at least until the noise event ceases;

(4) Upon repeated exposure, a marine mammal may exhibit diminishing responsiveness (habituation), or disturbance effects may persist; the latter is most likely with sounds that are highly variable in characteristics, infrequent and unpredictable in occurrence, and associated with situations that a marine mammal perceives as a threat;

(5) Any anthropogenic noise that is strong enough to be heard has the potential to reduce (mask) the ability of a marine mammal to hear natural sounds at similar frequencies, including calls from conspecifics, and underwater environmental sounds such as surf noise;

(6) If mammals remain in an area because it is important for feeding, breeding or some other biologically important purpose even though there is chronic exposure to noise, it is possible that there could be noise-induced physiological stress; this might in turn have negative effects on the well-being or reproduction of the animals involved; and

(7) Very strong sounds have the potential to cause temporary or permanent reduction in hearing sensitivity. In terrestrial mammals, and presumably marine mammals, received sound levels must far exceed the animal's hearing threshold for there to be any temporary threshold shift (TTS) in its hearing ability. For transient sounds, the sound level necessary to cause TTS is inversely related to the duration of the sound. Received sound levels must be even higher for there to be risk of permanent hearing impairment. In addition, intense acoustic or explosive events may cause trauma to tissues associated with organs vital for hearing, sound production, respiration and other functions. This trauma may include minor to severe hemorrhage.

The only anticipated impacts to marine mammals associated with drilling activities are from propagation of sounds from the drilling units and associated support vessels and aircraft. SOI and NMFS believe that any impacts on the whale and seal populations of the Beaufort Sea activity area are likely to be short term and transitory arising from the temporary displacement of individuals or small groups from locations they may occupy at the times they are exposed to intermittent drilling sounds at the 120–190 db received levels. As noted in SOI's IHA application, it is highly unlikely that animals will be exposed to sounds of such intensity and duration as to physically damage their auditory mechanisms. In the case of bowhead

whales that displacement might well take the form of a deflection of the swim paths of migrating bowheads away from (seaward of) received noise levels greater than 160 db (Richardson *et al.*, 1999). This study and other studies conducted to test the hypothesis of the deflection response of bowheads have determined that bowheads return to the swim paths they were following at relatively short distances after their exposure to the received sounds (SOI, 2006). To date, no evidence has been obtained that bowheads so exposed have incurred injury to their auditory mechanisms. Additionally, while there is no conclusive evidence that exposure to sounds exceeding 160 db have displaced bowheads from feeding activity (Richardson and Thomson, 2002), there is some information that intermittent sounds (e.g., oil drilling and vessel propulsion sounds) may cause a deflection in the migratory path of whales (Malme *et al.*, 1983, 1984), but possibly not when the acoustic source is not in the direct migratory path (Tyack and Clark, 1998).

There is no evidence that seals are more than temporarily displaced from ensonified zones and no evidence that seals have experienced physical damage to their auditory mechanisms even within ensonified zones.

Distance Effects of Open Water Drilling on Marine Mammals

The only type of incidental taking requested in SOI's IHA application is that of takes by noise harassment. The principal sources of project-created noise will be those resulting from the *Kulluk* and *Discoverer* and their support vessels, especially ice management vessels. Although the bulk of the activity will be centered in the area of drilling, potential exposures, or impacts to marine mammals also will occur as the drilling vessels, and ice management vessels mobilize through the Beaufort and Chukchi Seas.

Noise propagation studies were performed on the *Kulluk* (Hall *et al.*, 1994) in the Kuvlum prospect drill sites, approximately 6 mi (9.6 km) east of SOI's Sivulliq prospect that SOI is proposing to drill during 2007. Acoustic recording devices were established at 10–m (33–ft) and 20–m (65.6–ft) depths below water surface at varying distances from the *Kulluk* and decibel (dB) levels were recorded during drilling operations. There were large differences between sound propagation between the different water depths. At 10 m (33 ft) water depth, the 120–db threshold had a 0.7–km (0.4–mi) radius around the *Kulluk*, and the 105–db threshold had an 8.5–km (5.3–mi) radius. At a depth of 20 m (66 ft) below water surface, the 120–db threshold had a radius of 8.5 km (5.3 mi) and the 105–db threshold had a radius of 100 km (62.1 mi). There is no definitive explanation for the large differences in propagation at the different levels. Possible explanations include the presence of an acoustic layer due to melting ice during the sound studies and/or sound being channeled into the lower depths due to the seafloor topography (SOI, 2006). However, new sound propagation studies will be performed on the *Kulluk*, *Discoverer*, ice management, and support vessels once these vessels are at their locations for drilling in the Beaufort Sea.

Numbers of Marine Mammals Expected to Be Taken

Using the marine mammal density estimates presented in Table 6–1 (see IHA application), SOI provided estimates of the numbers of potential marine mammal sound exposures in Table 6–2. Average expected abundances for bowhead whales were derived from the Miller *et al.* (2002) feeding study in which total proportion of the population ''moving through'' was estimated for the depth isopleths in which drilling operations are expected to occur. These estimates are based on the 160 dB re 1 microPa (rms) criteria for most cetaceans, because this range is assumed to be the sound source level at which marine mammals may change their behavior sufficiently to be considered ''taken by harassment.'' The proportion of bowhead whales that might occur within the area potentially ensonified by the 160 dB criterion was estimated from Richardson and Thomson (2002) in which average migrating distribution across the 0–20, 20–40, 40–200 and >200 m (65.6 ft, 131 ft, 656 ft respectively) isopleths are estimated to be 25, 27, 37, and 10 percent of the population respectively. As the majority of the operations related to the 2007 drilling program will occur within the 20–40 m (65.6–131 ft) depth isopleth, SOI estimates that the average expected number of bowheads in this area would be 3,480 individuals. As a conservative estimate of potential bowheads present was twice that number, or a maximum estimate of 6,960 individual bowheads.

Hall *et al.* (1994) utilized measurements from sonobuoys deployed at distances of 20, 27, and 34 km (65.6, 88.6, 111.5 ft) from active drilling operations to estimate that combined activities including drilling, geotechnical boring, vessel transit, and ice management activities may reach 160 dB at a distance of 200 m (656 ft) from the source. Although no single source produced measured sound in excess of 160 dB, this 200–m (656–ft) distance was selected by SOI as a conservative estimate of potential sound propagation from drilling related sources. Although planned operating procedures will limit the number of sound sources that will be operating during any portion of the bowhead migration, the additional conservative assumption is made that 10 sources could simultaneously operate at a level to cumulatively produce 160 dB at 200 m (656 ft). Therefore, the total 160 dB ensonified area would be 2 km (1.2 mi), or approximately 7 percent of the 29–km (18–mi) wide 20–40 m (65.6–131 ft) isopleth. Seven percent of the bowhead whales present in the 20–40 m (65.6–131 ft) isopleth would be 244 animals at the average density estimate and 488 animals at the maximum density estimate.

Based on the findings by Malme *et al.* (1983, 1984) for intermittent low-frequency noise exposures on a low-frequency hearing specialist (gray whales), NMFS requested SOI prepare an estimation of sound exposures to the level of 120 dB rms. Although the biological significance of this 120–dB sound level is subject to debate (as indicated by later research (Tyack and Clark, 1998), if the LF source was removed from the direct migratory path, gray whales ignored the signal), several related studies report (discussed next) that migrating bowhead whales react to and, possibly avoid, sound levels in excess of 120 dB. As such, estimation of exposures to 120 dB levels is included in this discussion.

SOI points out that one difficulty with NMFS' 120–dB criterion for intermittent noise is an inconsistency between field observations of migrating bowhead avoidance behavior associated with sound measurements and sound measurements and modeling that is independent of whale observations. The majority of observations (in the Beaufort Sea) upon which the 120–dB criterion are based are derived from aerial monitoring programs around both drilling and seismic sources. Closest observed proximity of bowhead whales to operating drilling or icebreaking operations vary between 3 km (1.86 mi) (Hall *et al.*, 1994), 11 km (6.8 mi) (LGL & Greeneridge, 1987) and 19 km (11.8 mi) (Ljungblad *et al.*,1987). SOI notes that there is some consistency, however, in estimation of the distance of deflection from drilling/ice management activities being in the range of 10–20 km (6.2–12.4 mi) from the source. Sound measurements acquired in the proximity of observed whales tend to be

approximately 120 dB leading to the conclusion that migrating bowheads tend to avoid sound levels in excess of 120 dB (Richardson *et al.*, 1995). Similar conclusions have been drawn from observations around operating seismic vessels (LGL, 2005).

Projection of sound propagation from measurements of sound around drilling operations and seismic operations and modeled sound propagation (Hall *et al.*, 1994) yielded estimations of the 120–dB isopleth well beyond the 20 km (12.4 mi) distance. For example, Hall *et al.* (1994) estimated the 120–dB isopleth for combined drilling/ice management operations to be in excess of 100 km (62 mi) from the source(s). While subsistence hunters report changes in migrating bowhead whale behavior at distance as far as 35 mi (56 km) from operating seismic vessels, extrapolation of avoidance to greater distances is not generally reported.

For the purpose of estimation of relevant exposures for bowhead whales, a reasonably conservative distance of 30 km (18.6 mi) zone of potential exposure around drilling operations would produce exposures within the 0–20, 20–40, and 40–200 m (65.6 ft, 131 ft, 656 ft respectively) depth zones. As a result, it is possible that exposures to sound levels in excess of 120 dB could be experienced by as much as 65 percent of the population (8,378 individuals).

For all other species, the average expected abundance was estimated by multiplying the reported densities (Table 6–1 in the IHA application) for each species times a potential operational area of 840 km2 (operational is the area in which primary drilling activities will occur, i.e. 29–km (18–mi) width of the 20–m - 40–m (65.6–ft - 131–ft) depth isopleth squared). Maximum expected abundances for all species were estimated by multiplying average expected abundance times two. Average and expected exposures were then calculated by multiplying the abundance times the expected portion of the operational area expected to be ensonified greater than 160 dB (i.e. 0.069).

Ringed seals would be the most prevalent marine mammal species encountered at each of the two proposed drilling areas. Pinnipeds are not likely to react to sounds unless they are ≤170 dB re 1 microPa (rms), and Moulton and Lawson (2002) indicated that most pinnipeds exposed to 170 dB do not visibly react. Under this IHA, SOI has requested a take authorization for all pinnipeds using the maximum density between 170 and 179 dB instead of the 160 dB threshold. SOI's decision to use the lower estimated number is based on the theory that surveys for pinnipeds within the Beaufort Sea, and elsewhere, are based on on-ice counts which will overestimate the number of potential exposures (i.e., only a portion of the animals are in the water, and therefore, could be exposed). Spotted and bearded seals may be encountered in much small numbers than ringed seals, but also have the potential for some exposure.

Potential Impact of the Activity on the Species or Stock

SOI states that the only anticipated impacts to marine mammals associated with drilling activities would be behavioral reactions to noise propagation from the drilling units and associated support vessels. NMFS notes however, that in addition to these sources of anthropogenic sounds, additional disturbance to marine mammals may result from aircraft overflights and the resulting visual disturbance by the drilling vessels themselves. SOI and NMFS believe, however, that the impacts would be temporary and result in only short term displacement of seals and whales from within ensonified zones produced by such noise sources. Any impacts on the whale and seal populations of the Beaufort Sea activity area are likely to be short term and transitory arising from the temporary displacement of individuals or small groups from locations they may occupy at the times they are exposed to drilling sounds at the 160–190 db (or lower) received levels. As noted, it is highly unlikely that animals will be exposed to sounds of such intensity and duration as to physically damage their auditory mechanisms. In the case of bowhead whales that displacement might well take the form of a deflection of the swim paths of migrating bowheads away from (seaward of) received noise levels greater than 160 db (Richardson *et al.*, 1999). Studies conducted to test the hypothesis of the deflection response of bowheads have determined that bowheads return to the swim paths they were following at relatively short distances after their exposure to the received sounds (SOI, 2006). There is no evidence that bowheads so exposed have incurred injury to their auditory mechanisms. Additionally, there is no conclusive evidence that exposure to sounds exceeding 160 db have displaced bowheads from feeding activity (Richardson and Thomson, 2002). Finally, there is no indication that seals are more than temporarily displaced from ensonified zones and no evidence that seals have experienced physical damage to their auditory mechanisms even within ensonified zones.

Potential Effects of Drilling Sounds and Related Activities on Subsistence Needs

SOI notes that there could be an adverse impact on the Inupiat bowhead subsistence hunt if the whales were deflected seaward (further from shore) in the traditional hunting areas north of Pt. Thomson in Camden Bay. The impact would be that whaling crews would necessarily be forced to travel greater distances to intercept westward migrating whales thereby creating a safety hazard for whaling crews and/or limiting chances of successfully striking and landing bowheads. This potential impact is proposed to be mitigated by the application of mitigation procedures described later in this document and implemented by a Conflict Avoidance Agreement (CAA) between the SOI, the Alaska Eskimo Whaling Commission (AEWC) and the whaling captains' associations of Kaktovik, Nuiqsut and Barrow. SOI believes that the proposed mitigation measures will minimize adverse effects on whales and whalers. (see Mitigation later in this document). As a result, there should not be an unmitigable adverse impact on the availability of the marine mammal species, particularly bowhead whales, for subsistence uses.

Potential Impact On Habitat

SOI states that the proposed drilling and related activities will not result in any permanent impact on habitats used by marine mammals, or to their prey sources. Any effects would be temporary and of short duration at any one location. The effects of the planned drilling activities are expected to be negligible. It is estimated that only a small portion of the animals utilizing the areas of the proposed activities would be temporarily displaced from that habitat. During the period of drilling activities (late-July or early-August through October 2007), most marine mammals would be dispersed throughout the Beaufort Sea area. The peak of the bowhead whale migration through the Beaufort Sea typically occurs in October, and efforts to reduce potential impacts during this time will be discussed with the affected whaling communities. Starting in late- August, bowheads may travel in proximity to the drilling activity and some might be displaced seaward by the planned activities. The numbers of cetaceans and pinnipeds subject to displacement are small in relation to abundance estimates for the affected mammal stocks.

In addition, SOI states that feeding does not appear to be an important

activity by bowheads migrating through the eastern and central part of the Alaskan Beaufort Sea in most years. In the absence of important feeding areas, the potential diversion of a small number of bowheads is not expected to have any significant or long-term consequences for individual bowheads or their population. Bowheads, gray, or beluga whales are not predicted to be excluded from any significant habitat.

The proposed activities are not expected to have any habitat-related effects that would produce long-term affects to marine mammals or their habitat due to the limited extent of the acquisition areas and timing of the activities.

Proposed Mitigation and Monitoring Measures

SOI has proposed implementing a marine mammal mitigation and monitoring program (MMMMP) that will consist of monitoring and mitigation during the exploratory drilling activities. In conjunction with monitoring during SOI's seismic and shallow-hazard surveys (subject to an upcoming notice and review), monitoring will provide information on the numbers of marine mammals potentially affected by these activities and permit real time mitigation to prevent injury of marine mammals by industrial sounds or activities. These goals will be accomplished by conducting vessel- , aerial-, and acoustic-monitoring programs to characterize the sounds produced by the drilling and to document the potential reactions of marine mammals in the area to those sounds and activities. Acoustic modeling will be used to predict the sound levels produced by the shallow hazards and drilling equipment in the U.S. Beaufort Sea. For the drilling program, acoustic measurements will also be made to establish zones of influence (ZOIs) around the activities that will be monitored by observers. Aerial monitoring and reconnaissance of marine mammals and recordings of ambient sound levels, vocalizations of marine mammals, and received levels should they be detectable using bottom-founded acoustic recorders along the Beaufort Sea coast will be used to interpret the reactions of marine mammals exposed to the activities. The components of SOI's monitoring program is briefly described next. Additional information can be found in SOI's application.

Underwater Acoustics Program

Sounds produced during the drilling operation and by the shallow hazards equipment and other support vessels will be measured in the field during typical operations. These measurements will be used to establish disturbance radii for marine mammal groups within the project area. The objectives of SOI's planned work are: (1) to measure the distances from the various sound sources to broadband received levels of 170, 160, and 120 dB rms re 1 microPa (sounds are not expected to reach 180 dB), and (2) to measure the radiated vessel sounds vs. distance for the source and support vessels. The measurements will be made at the beginning of the specific activity (i.e., shallow hazards survey activity and drilling activity) and all safety and disturbance radii will be reported within 72 hours of completing the measurements. For the drilling operation, a subsequent mid-season assessment will be conducted to measure sound propagation from combined drilling operations during ''normal'' operations. For drilling activities, the primary radii of concern will be the 160–dB disturbance radii (although measurements will be made to the 180–dB isopleth). In addition to reporting the radii of specific regulatory concern, distances to other sound isopleths down to 120 dB (if measurable) will be reported in increments of 10 dB. The distance at which received sound levels become ≤ 120 dB for continuous sound (which occurs during drilling activities as opposed to impulsive sound which occurs during seismic activities) is sometimes considered to be a zone of potential disturbance for some cetacean species by NMFS. SOI plans to use vessel-based marine mammal observers (MMOs) to monitor the 160–dB disturbance radii around the seismic sound sources and, if necessary, to implement mitigation measures for the 190- and 180–dB safety radii. The MMOs will also monitor the 120–dB zone around the drilling ships. An aerial survey program will be implemented to monitor the 120–dB zone around the drilling activities in the Beaufort Sea in 2007. These two monitoring and mitigation programs are discussed next.

SOI plans to use a qualified acoustical contractor to measure the sound propagation of the vessel-based drilling rigs during periods of drilling activity, and the drill ships and support vessels while they are underway at the start of the field season. Noise from ships with ice-breaking capabilities will be measured during periods of ice-breaking activity. These measurements will be used to determine the sound levels produced by various equipment and to establish any safety and disturbance radii if necessary. Bottom-founded hydrophones similar to those used in 2006 for measurements of vessel-based seismic sound propagation will likely be used to determine the levels of sound propagation from the drill rigs and associated vessels. An initial sound source analysis will be supplied to NMFS and the drilling operators within 72 hours of completion of the measurements, if possible. A detailed report on the methodology and results of these tests will be provided to NMFS as part of the 90 day report following completion of the drilling program.

Acoustic Monitoring Program

SOI plans to develop an acoustic component of the MMMMP to further understand, define, and document sound characteristics and propagation within the broader Beaufort Sea and potential deflections of bowhead whales from anticipated migratory pathways in response to vessel-based drilling activities. Of particular interest for this investigatory component is the east-west extent of deflection (i.e., how far east of a sound source do bowheads begin to deflect and how far to the west beyond the sound source does deflection persist). Of additional interest is the extent of offshore deflection that occurs. Currently, insufficient information is available on how vessel-based drilling noise similar to that proposed by SOI in the Beaufort Sea in 2007 may impact migrating bowhead whales.

Determining the potential effects of drilling noise on migration bowhead whales will be complicated by the presence of ice-breaking and other support vessels that may contribute significantly to underwater sound levels. Miles *et al.* (1987) reported higher sound pressure levels (SPLs) from ice-breakers underway in open water than from vessel-based drilling activity. SPLs from dredging activity, a working tug, and an icebreaker pushing ice were also greater than those produced by vessel-based drilling activity. However, sounds produced during drilling activity are relatively continuous while ice management vessel sounds are considered to be intermittent, and there is some concern that continuous and intermittent sounds may result in behavioral reactions (at least in mysticete whales) at a greater distance than impulse sound (i.e., seismic) of the same intensity.

Acoustic localization methods provide a possible alternative to aerial surveys for addressing these questions. As compared with aerial surveys, acoustic methods have the advantage of providing a vastly larger number of whale detections, and can operate day or night, independent of visibility, and

to some degree independent of ice conditions and sea state-all of which prevent or impair aerial surveys. However, acoustic methods depend on the animals to call, and to some extent assume that calling rate is unaffected by exposure to industrial noise. Bowheads do call frequently in the fall, but there is some evidence that their calling rate may be reduced upon exposure to industrial sounds, complicating interpretation. Also, acoustic methods require development and deployment of instruments that are stationary (preferably mounted on the bottom) to record and localize the whale calls. According to SOI, acoustic methods would likely be more effective for studying impacts related to a stationary sound source, such as a drilling rig that is operating within a relatively localized area, than for a moving sound source such as that produced by a seismic source vessel.

In addition, SOI plans to conduct a study in 2007 similar to the one conducted for seismic in 2006 in the Chukchi Sea to determine the effect of drilling noise and noise from support vessels and seismic activities on migrating bowhead whales. An acoustic ''net'' array was used during the 2006 field season in the Chukchi Sea. It was designed to (1) collect information on the occurrence and distribution of beluga whales that may be available to subsistence hunters near villages located on the Chukchi Sea coast, and (2) measure the ambient noise levels near these villages and record received levels of sounds from seismic survey activities should they be detectable. The basic components of this effort consisted of bottom-founded equipment for long-duration passive acoustic recording. A suite of autonomous seafloor recorders was deployed in a ''net'' array extending from nearshore to approximately 50 miles offshore. During the 2007 drilling program, SOI proposes to deploy bottom-founded acoustic recorders around SOI's drilling activities that have the ability of recording calling whales. Figure 1 in SOI's IHA application shows potential locations of the bottom-founded recorders and an array layout in relation to the drilling site. The actual locations of the bottom-founded recorders will depend on specifications of recording equipment chosen for the project, and on the acoustical characteristics of the environment, which are yet to be determined. The results of these data will be used to determine the extent of deflection of migrating bowhead whales from the sound sources produced by the vessel-based drill rig.

Aerial Survey Monitoring Program

SOI proposes to conduct an aerial survey program in support of its dual seismic exploration and drilling programs in the Beaufort Sea during summer and fall of 2007. The objectives of the aerial survey will be to: (1) advise operating vessels as to the presence of marine mammals in the general area of operations; (2) monitor the area east of the seismic activity to ensure that large numbers of bowhead mothers and calves do not enter the area where they would be ensonified by seismic sounds ≥120 dB re 1microPa, which might displace them from feeding areas or their preferred migratory routes, (3) collect and report data on the distribution, numbers, movement and behavior of marine mammals near the seismic and drilling operations with special emphasis on migrating bowhead whales; (4) support regulatory reporting and Inupiat communications related to the estimation of impacts of seismic and drilling operations on marine mammals; (5) monitor the accessibility of bowhead whales to Inupiat hunters; and, (6) document how far west of seismic and drilling activities bowhead whales travel before they return to their normal migration paths, and if possible, to document how far east of seismic and drilling operations the deflection begins.

For additional information on SOI's aerial survey design and other information, please refer to SOI's IHA application.

Vessel-based Marine Mammal Monitoring Program

The vessel-based operations will be the core of SOI's MMMMP. The MMMMP will be designed to ensure that disturbance to marine mammals and subsistence hunts is minimized, that effects on marine mammals are documented, and to collect baseline data on the occurrence and distribution of marine mammals in the study area. Those objectives will be achieved, in part, through the vessel-based monitoring and mitigation program.

The MMMMP will be implemented by a team of experienced MMOs, including both biologists and Inupiat personnel, approved in advance by NMFS. The MMOs will be stationed aboard the drilling vessels and associated support vessels throughout the drilling period. The duties of the MMOs will include watching for and identifying marine mammals; recording their numbers, distances, and reactions to the drilling operations; initiating mitigation measures when appropriate; and reporting the results. Reporting of the results of the vessel-based monitoring program will include the estimation of the number of ''takes.''

Drilling activities are expected to occur during August and October 2007. The dates and operating areas will depend upon ice and weather conditions, along with SOI's arrangements with agencies and stakeholders. Vessel-based monitoring for marine mammals will be performed throughout the period of drilling operations. The vessel-based work will provide: (1) the basis for real-time mitigation, (2) information needed to estimate the ''take'' of marine mammals by harassment, which must be reported to NMFS and USFWS, (3) data on the occurrence, distribution, and activities of marine mammals in the areas where the drilling program is conducted, (4) information to compare the distances, distributions, behavior, and movements of marine mammals relative to the source vessels at times with and without drilling or ice-management activity, (5) a communication channel to Inupiat whalers and the Whaling Coordination Center, and (6) employment and capacity building for local residents, with one objective being to develop a larger pool of experienced Inupiat MMOs.

All MMOs will be provided training through a program approved by NMFS, as described later. At least one observer on each vessel will be an Inupiat who will have the additional responsibility of communicating with the Inupiat community and (during the whaling season) directly with Inupiat whalers. Details of the vessel-based marine mammal monitoring program are described in the IHA application.

Mitigation Measures During Drilling Activities

SOI's proposed offshore drilling program incorporates both design features and operational procedures for minimizing potential impacts on marine mammals and on subsistence hunts. The design features and operational procedures are described in the IHA application and are summarized below. Survey design features to reduce impacts include: (1) timing and locating some drilling support activities to avoid interference with the annual fall bowhead whale hunts from Kaktovik, Nuiqsut (Cross Island), and Barrow; (2) conducting pre-season modeling and early season field assessments to establish the appropriate 180 dB and 190 dB safety zones (if necessary), and the 160 and 120 dB behavior radii; and (3) vessel-based (and aerial) monitoring to implement appropriate mitigation (and to assess the effects of project activities on marine mammals).

Under current NMFS guidance ''safety radii'' for marine mammals around acoustic sources are customarily defined as the distances within which received pulse levels are ≥180 dB re 1 microPa (rms) for cetaceans and ≥190 dB re 1 microPa (rms) for pinnipeds. These safety criteria are based on an assumption that lower received levels will not injure these animals or impair their hearing abilities, but that higher received levels might have a potential for such effects. Mitigation measures as discussed below would be implemented if marine mammals are observed within or about to enter these safety radii. However, Greene (1987) reported SPLs ranging from 130–136 dB (rms) at 0.2 km (656 ft) from the *Kulluk* during drilling activities (drilling, tripping, and cleaning) in the Arctic. Higher received levels up to 148 dB (rms) were recorded for supply vessels that were underway and for icebreaking activities. As a result, SOI believes that the exploratory drilling and the activities of the support vessels are not likely to produce sound levels sufficient to cause temporary hearing loss or permanent hearing damage to any marine mammals. Consequently, standard mitigation as described later in this document for seismic activities including shut down of any drilling activity should not be necessary (unless sound monitoring tests described elsewhere in this document indicate SPLs at or greater than 180 dB). If testing indicates SPLs will reach or exceed 180 dB or 190 dB, then appropriate mitigation measures would be implemented by SOI to avoid potential Level A harassment of cetaceans (at or above 180 dB) or pinnipeds (at or above 190 dB). Mitigation measures may include reducing drilling or ice management noises, whichever is appropriate. However, SOI plans to use MMOs onboard the drill ships and the various support and supply vessels to monitor marine mammals and their responses to industry activities. In addition, an acoustical program and an aerial survey program which are discussed in previous sections will be implemented to determine potential impacts of the drilling program on marine mammals.

Marine Mammal Observers

The observer(s) (MMOs and Inupiat) will watch for marine mammals from the best available vantage point on the operating source vessel, which is usually the bridge or flying bridge. The observer(s) will scan systematically with the naked eye and 7 50 reticle binoculars, supplemented with night-vision equipment when needed (see below). Personnel on the bridge will assist the marine mammal observer(s) in watching for pinnipeds and whales. The observer(s) will give particular attention to the areas around the vessel. When a mammal sighting is made, the following information about the sighting will be recorded: (1) Species, group size, age/size/sex categories (if determinable), behavior when first sighted and after initial sighting, heading (if consistent), bearing and distance from seismic vessel, apparent reaction to seismic vessel (e.g., none, avoidance, approach, paralleling, etc.), closest point of approach, and behavioral pace; (2) time, location, heading, speed, and activity of the vessel, sea state, ice cover, visibility, and sun glare; (3) the positions of other vessel(s) in the vicinity of the source vessel. This information will be recorded by the MMOs at times of whale (but not seal) sightings.

The ship's position, heading, and speed, the seismic state (e.g., number and size of operating airguns), and water temperature, water depth, sea state, ice cover, visibility, and sun glare will also be recorded at the start and end of each observation watch, every 30 minutes during a watch, and whenever there is a change in any of those variables. Distances to nearby marine mammals will be estimated with binoculars containing a reticle to measure the vertical angle of the line of sight to the animal relative to the horizon. Observers may use a laser rangefinder to test and improve their abilities for visually estimating distances to objects in the water. However, previous experience showed that this Class 1 eye-safe device was not able to measure distances to seals more than about 70 m (230 ft) away. However, it was very useful in improving the distance estimation abilities of the observers at distances up to about 600 m (1968 ft)-the maximum range at which the device could measure distances to highly reflective objects such as other vessels. Experience indicates that humans observing objects of more-or-less known size via a standard observation protocol, in this case from a standard height above water, quickly become able to estimate distances within about plus or minus 20 percent when given immediate feedback about actual distances during training.

In addition to routine MMO duties, Inupiat observers will be encouraged to record comments about their observations into the ''comment'' field in the database. Copies of these records will be available to the Inupiat observers for reference if they wish to prepare a statement about their observations. If prepared, this statement would be included in the 90–day and final reports documenting the monitoring work.

Mitigation for Subsistence Uses

The *Kulluk* and *Discoverer*, and all support vessels and aircraft will operate in accordance with the conditions of a CAA currently being negotiated with the AEWC. SOI notes that the CAA for SOI's drilling activity will incorporate all appropriate measures and procedures regarding the timing and areas of the operator's planned activities (i.e., times and places where effects of drilling operations will be monitored and prospectively mitigated to avoid potential conflicts with active subsistence whaling and sealing); communications system between operator's vessels and whaling and hunting crews (i.e., the communications centers will be located in strategic areas); provision for marine mammal observers/Inupiat communicators aboard all project vessels; conflict resolution procedures; and provisions for rendering emergency assistance to subsistence hunting crews. The CAA will also provide guidance toward mitigating any potential adverse effects on the bowhead whale subsistence hunts by member of the villages of Kaktovik and Nuiqsut.

Reporting

The results of the 2007 SOI vessel-based monitoring, including estimates of take by harassment, will be presented in the ''90 day'' and final technical report(s)'' usually required by NMFS under IHAs. SOI proposes that these technical report(s) will include: (1) summaries of monitoring effort: total hours, total distances, and distribution through study period, sea state, and other factors affecting visibility and detectability of marine mammals; (2) analyses of the effects of various factors influencing detectability of marine mammals: sea state, number of observers, and fog/glare; (3) species composition, occurrence, and distribution of marine mammal sightings including date, water depth, numbers, age/size/gender categories, group sizes, and ice cover; (4) sighting rates of marine mammals versus operational state (and other variables that could affect detectability); (5) initial sighting distances versus operational state; (6) closest point of approach versus seismic state; (7) observed behaviors and types of movements versus operational state; (8) numbers of sightings/individuals seen versus operational state; (9) distribution around the drilling vessel and support vessels versus operational state; and (10) estimates of take based on (a) numbers

of marine mammals directly seen within the relevant zones of influence (160 dB, 180 dB, 190 dB (if SPLs of that level are measured)), and (b) numbers of marine mammals estimated to be there based on sighting density during daytime hours with acceptable sightability conditions.

Comprehensive Report

Following the 2007 open water season, a comprehensive report describing the proposed acoustic, vessel-based, and aerial monitoring programs will be prepared. The comprehensive report will describe the methods, results, conclusions and limitations of each of the individual data sets in detail. The report will also integrate (to the extent possible) the studies into a broad based assessment of industry activities and their impacts on marine mammals in the Beaufort Sea during 2007. The report will form the basis for future monitoring efforts and will establish long term data sets to help evaluate changes in the Beaufort Sea ecosystem. The report will also incorporate studies being conducted in the Chukchi Sea and will attempt to provide a regional synthesis of available data on industry activity in offshore areas of northern Alaska that may influence marine mammal density, distribution and behavior.

This comprehensive report will consider data from many different sources including two relatively different types of aerial surveys; several types of acoustic systems for data collection (net array, passive acoustic monitoring, vertical array, and other acoustical monitoring systems that might be deployed), and vessel based observations. Collection of comparable data across the wide array of programs will help with the synthesis of information. However, interpretation of broad patterns in data from a single year is inherently limited. Much of the 2007 data will be used to assess the efficacy of the various data collection methods and to establish protocols that will provide a basis for integration of the data sets over a period of years.

Plan of Cooperation (POC)

SOI notes in its IHA application that POC meetings occurred in Barrow and Nuiqsut on October 16 and 17, 2006, and follow-up meetings are planned for the period May or June 2007 in these communities. SOI conducted a meeting with the Kaktovik Inupiat Corporation in Kaktovik on November 28, 2006, and will continue efforts with public and private organizations to hold additional meetings as needed in Kaktovik during 2007. Following these meetings, a POC report will be prepared.

SOI also notes in its application that negotiations were initiated beginning September 2006 with the AEWC to create a drilling CAA between SOI, and the subsistence hunting communities of Barrow, Nuiqsut, and Kaktovik for the 2007 drilling program activities. The drilling CAA will cover both the proposed Beaufort Sea exploratory and geotechnical drilling programs. SOI and other industry participant operators, with AEWC, attended public meetings and meet with the whaling captains in the communities of Kaktovik, Nuiqsut, and Barrow between January 29–February 1, 2007. These meetings initiated information exchanges with the communities on the potential, proposed open water seismic and drilling programs for 2007. Additional engagements with AEWC and the whaling captains of Kaktovik, Nuiqsut, and Barrow will occur between these meetings and onset of open water activities in June/July of 2007.

If requested, post-season meetings will also be held to assess the effectiveness of the 2007 drilling CAA, to address how well conflicts (if any) were resolved; and to receive recommendations on any changes (if any) might be needed in the implementation of future CAAs.

Endangered Species Act (ESA)

NMFS has issued a biological opinion regarding the effects of oil-and-gas activities in the Arctic Ocean on ESA-listed species and critical habitat under the jurisdiction of NMFS. That biological opinion concluded that oil-and-gas exploration activities are not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. A copy of the Biological Opinion is available upon request (see **ADDRESSES**). NMFS will also consult on the issuance of this IHA under section 101(a)(5)(D) of the MMPA to SOI for this activity. Consultation will be concluded prior to a determination on the issuance of an IHA.

National Environmental Policy Act (NEPA)

The information provided in the Environmental Assessment (EA) on the Proposed OCS Lease Sale 202 Beaufort Sea Planning Area by the MMS in August 2006 led MMS to determine that implementation of either the preferred alternative or other alternatives identified in the EA would not have a significant impact on the human environment. Therefore, an Environmental Impact Statement was not prepared by MMS. Preliminarily, NMFS has determined that the proposed action discussed in this document is not substantially different from the 2006 action. A final decision on whether to adopt the MMS EA as its own and issue a Finding of No Significant Impact, or to prepare its own NEPA document will be made by NMFS prior to making a final decision on the proposed issuance of an IHA to SOI for this activity.

Preliminary Conclusions

Based on the information provided in SOI's application and other referenced documentation, NMFS has preliminarily determined that the impact of SOI conducting an exploratory drilling program in the U.S. Beaufort Sea in 2007 will have no more than a negligible impact on marine mammals. NMFS has preliminarily determined that the short-term impact of conducting exploratory drilling by two drilling vessels and by supporting vessels, including ice management vessels in the U.S. Beaufort Sea may result, at worst, in a temporary modification in behavior by certain species of marine mammals, including vacating the immediate vicinity around the activity due to noise from the activity.

While behavioral and avoidance reactions may be made by these species in response to the resultant noise, this behavioral change is expected to have a negligible impact on the animals. While the number of potential incidental harassment takes will depend on the distribution and abundance of marine mammals (which vary annually due to variable ice conditions and other factors) in the area of drilling operations, the number of potential harassment takings is estimated to be small (as indicated in Table 6–2 in SOI's application). In addition, no take by death and/or serious injury is anticipated or would be authorized; there is a very low potential for an oil spill to result from the drilling activity, and the potential for temporary or permanent hearing impairment is low due to the low SPLs associated with drilling and ice management activities. Also, Level B harassment takings are likely to be avoided through the incorporation of the monitoring and mitigation measures mentioned in this document and required by the authorization. No rookeries, mating grounds, areas of concentrated feeding, or other areas of special significance for marine mammals occur within or near the planned area of operations during the season of operations.

At this time NMFS is unable to make a preliminary determination that SOI's proposed drilling program will not have an unmitigable adverse impact on

subsistence uses of bowhead whales. As SOI notes in its IHA application, there could be an adverse impact on the Inupiat bowhead subsistence hunt if the whales were deflected seaward (further from shore) in the traditional hunting areas north of Pt. Thomson in Camden Bay. NMFS believes that this could result in whaling crews being forced to travel greater distances to intercept westward migrating whales thereby creating a significant safety hazard for whaling crews (with a potential loss of life), limiting chances of successfully striking and landing bowheads, and/or not landing bowheads quickly before decomposition and spoilage occurs. Prior to issuing an IHA for activities that take place in Arctic waters, NMFS must ensure that the taking by the activity will not have an unmitigable adverse impact on subsistence uses of marine mammals. In 50 CFR 216.103, NMFS has defined an ''unmitigable adverse impact'' to mean:

an impact resulting from the specified activity: (1) That is likely to reduce the availability of the species to a level insufficient for a harvest to meet subsistence needs by: (i) Causing the marine mammals to abandon or avoid hunting areas; (ii) Directly displacing subsistence users; or (iii) Placing physical barriers between the marine mammals and the subsistence hunters; and (2) That cannot be sufficiently mitigated by other measures to increase the availability of marine mammals to allow subsistence needs to be met.

While SOI states that the potential impact will be mitigated by the application of mitigation procedures described in its application and implemented by a CAA between the SOI, the AEWC and the whaling captains' associations of Kaktovik, Nuiqsut and Barrow, the IHA application does not contain suggested measures to mitigate impacts on the fall bowhead subsistence hunt. NMFS presumes that SOI preferred to not make these measures public while it continued discussions with the AEWC and affected whaling captains (see Plan of Cooperation). Mitigation measures suggested publically include warm shutdown of drilling operations during the subsistence hunt and moving the drilling structures either further offshore or behind the barrier islands. Therefore, while SOI believes that the mitigation measures that will be implemented will minimize any adverse effects on whales and whalers, NMFS has not been provided an opportunity to make a similar determination. In its application, SOI states that it would provide results of its discussion of measures to reduce impacts to subsistence uses for bowhead whales this spring. NMFS encourages SOI to complete its negotiations quickly to ensure NMFS being able to make the determinations necessary under the MMPA within the time frames provided by the MMPA.

Therefore, provided the mitigation measures contained in the CAA are agreed upon by the involved parties (which does not include NMFS) and provided publically during the public comment period, NMFS proposes to issue an IHA to SOI for conducting an offshore drilling program in the U.S. Beaufort Sea in 2007, provided the previously mentioned monitoring and reporting requirements are incorporated. NMFS has preliminarily determined that the proposed activity would result in the harassment of small numbers of marine mammals; would have no more than a negligible impact on the affected marine mammal stocks; and, subject to development of mitigation measures during discussions with interested parties, would not have an unmitigable adverse impact on the availability of species or stocks for subsistence uses.

Dated: April 4, 2007.

P. Michael Payne,

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

[FR Doc. E7–6753 Filed 4–9–07; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 040507D]

New England Fishery Management Council; Public Meeting

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

ACTION: Notice of a public meeting.

SUMMARY: The New England Fishery Management Council (Council) is scheduling a public meeting of its Ad Hoc Sector Omnibus Committee (Committee) in April, 2007, to consider actions affecting New England fisheries in the exclusive economic zone (EEZ). Recommendations from this group will be brought to the full Council for formal consideration and action, if appropriate.

DATES: The meeting will be held on Thursday, April 26, 2007, at 9:30 a.m.

ADDRESSES: The meeting will be held at the Sheraton Ferncroft, 50 Ferncroft Road, Danvers, MA 01923; telephone: (978) 777–2500; fax: (978) 750–7959.

Council address: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

FOR FURTHER INFORMATION CONTACT: Paul J. Howard, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492.

SUPPLEMENTARY INFORMATION: The Committee will continue development of sector programs and operational guidelines addressing the specific terms of reference issues provided by the Council.

Although non-emergency issues not contained in this agenda may come before this group for discussion, those issues may not be the subject of formal action during this meeting. Action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Paul J. Howard, Executive Director, at (978) 465–0492, at least 5 days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: April 5, 2007.

Tracey L. Thompson,

Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. E7–6715 Filed 4–9–07; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 040507C]

North Pacific Fishery Management Council; Public Meeting

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

ACTION: Notice of a public meeting.

SUMMARY: The North Pacific Fishery Management Council (Council) Salmon Bycatch Workgroup will meet in Anchorage, AK.

DATES: The meeting will be held on Friday, April 27, 2007, from 9 a.m. to 3 p.m.

ADDRESSES: The meeting will be held at the Anchorage Hilton, 500 West 3rd Avenue, Lupine Room, Anchorage, AK.

Council address: North Pacific Fishery Management Council, 605 W.