conclusion from the proposed rule stage that the 1997 quotas would not have a significant economic impact on a substantial number of small entities engaged in the large coastal shark fishery.

On May 2, 1997, a coalition of commercial shark fishermen, dealers, and organizations sued the Secretary of Commerce (Secretary) to set aside the 1997 commercial shark quotas based on allegations of uncertainty in the data used in stock assessments, on lack of international management, and on NMFS' determination that there would be no significant economic impact on a substantial number of small entities engaged in the Atlantic shark fishery. On February 27, 1998, Judge Steven D. Merryday, U.S. District Court, Middle District of Florida, Tampa Division, issued an amended order that found ''that the Secretary acted within his regulatory discretion in setting the quotas but failed to conduct a proper analysis to determine the quota's economic effect on small businesses'' (p. 1). Judge Merryday ordered that the agency submit further analyses on or before May 15, 1998, and retained jurisdiction over the case pending review of the analyses. The quotas are maintained until further order of the Court. On April 14, 1998, NMFS announced the availability of the draft consideration of the economic effects and potential alternatives to the 1997 quotas on the Atlantic large coastal shark fishery in response to the judicial order. Public comment was requested on the assumptions, analysis, and conclusions in the draft document. The comments received were considered and used to improve the document. A summary of the comments and NMFS response to each are contained within the document. This final document was submitted to the United States District Court for the Middle District of Florida, Tampa Division, on May 15, 1998.

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

Dated: May 14, 1998.

**Gary C. Matlock,**

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

[FR Doc. 98–13352 Filed 5–19–98; 8:45 am]

BILLING CODE 3510–22–F

## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

**[I.D. 051498A]**

## Small Takes of Marine Mammals Incidental to Specified Activities; Offshore Seismic Activities in the Beaufort Sea

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

**ACTION:** Notice of receipt of application and proposed authorization for a small take exemption; request for comments.

**SUMMARY:** NMFS has received a request from Western Geophysical/Western Atlas International of Houston, Texas (Western Geophysical) for an authorization to take small numbers of marine mammals by harassment incidental to conducting seismic surveys in the Beaufort Sea in state and Federal waters. Under the Marine Mammal Protection Act (MMPA), NMFS is requesting comments on its proposal to authorize Western Geophysical to incidentally take, by harassment, small numbers of bowhead whales and other marine mammals in the above mentioned areas during the open water period of 1998.

**DATES:** Comments and information must be received no later than June 19, 1998.

**ADDRESSES:** Comments on the application should be addressed to Michael Payne, Chief, Marine Mammal Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Silver Spring, MD 20910–3225. A copy of the application, a 1996 environmental assessment (EA), and a list of references used in this document may be obtained by writing to this address or by telephoning one of the contacts listed here.

**FOR FURTHER INFORMATION CONTACT:** Kenneth R. Hollingshead, (301) 713–2055, Brad Smith, (907) 271–5006.

**SUPPLEMENTARY INFORMATION:**

### Background

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

Permission may 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 that the permissible methods of taking and requirements pertaining to the monitoring and reporting of such taking are set forth.

On April 10, 1996 (61 FR 15884), NMFS published an interim rule establishing, among other things, procedures for issuing incidental harassment authorizations under section 101(a)(5)(D) of the MMPA for activities in Arctic waters. For additional information on the procedures to be followed for this authorization, please refer to that document.

### Summary of Request

On April 15, 1998, NMFS received an application from Western Geophysical requesting an authorization for the harassment of small numbers of several species of marine mammals incidental to conducting seismic surveys during the open water season in the Beaufort Sea between Harrison Bay and Flaxman Island, AK. Weather permitting, the survey is expected to take place between approximately July 1 and October 20, 1998. A detailed description of the work proposed for 1998 is contained in the application (Western Geophysical, 1998) and is available upon request (see **ADDRESSES**).

### Description of Habitat and Marine Mammal Affected by the Activity

A detailed description of the Beaufort Sea ecosystem and its associated marine mammals can be found in the EA prepared for this authorization or in other documents (Minerals Management Service (MMS), 1992, 1996). This information is incorporated by reference and need not be repeated here. A copy of the EA is available upon request (see **ADDRESSES**).

### Marine Mammals

The Beaufort/Chukchi Seas support a diverse assemblage of marine mammals, including bowhead whales (*Balaena mysticetus*), gray whales (*Eschrichtius robustus*), belukha (*Delphinapterus leucas*), ringed seals (*Phoca hispida*), spotted seals (*Phoca largha*) and bearded seals (*Erignathus barbatus*). Descriptions of the biology and distribution of these species and of others can be found in several other documents (Western Geophysical, 1998; BPXA, 1996b, 1998; Lentfer, 1988;

MMS, 1992, 1996; Small and DeMaster, 1995; Hill *et al.*, 1997). Please refer to those documents for information on these species.

**Potential Effects of Seismic Surveys on Marine Mammals**

Disturbance by seismic noise is the principal means of taking by this activity. Support vessels and aircraft will provide a secondary source of noise. The physical presence of vessels and aircraft could also lead to non-acoustic effects involving visual or other cues.

Seismic surveys are used to obtain data about formations several thousands of feet deep. The proposed seismic operation is an ocean bottom cable (OBC) survey. OBC surveys involve dropping cables from a ship to the ocean bottom, forming a patch consisting of 4 parallel cables 10 kilometers (km) (6.2 mi) long, separated 750 m (2,500 ft) from each other. Sensors (hydrophones) are attached to the cables. These hydrophones are used to detect seismic energy reflected back from underground rock strata. The original source of this energy is a submerged acoustic source, called a seismic airgun array, that releases compressed air into the water, creating an acoustical energy pulse that is directed downward toward the seabed. The source level planned for this project—a maximum of 249 dB re 1 μPa-m (zero to peak) or 53 bar-meters peak-to-peak from a 1,500 $in^3$ array of airguns—is in the lower to middle portion of the range of source levels commonly used for seismic operations with airgun arrays (Richardson *et al.*, 1995). Normally, 36 seismic lines are run for each patch, covering an area 6.0 km by 17.5 km (3.7 mi by 10.87 mi), centered over the patch.

After sufficient data have been recorded to allow accurate mapping of the rock strata, the cable is lifted onto the deck of a cable-retrieval vessel, moved to a new location (ranging from several hundred to a few thousand feet away), and placed onto the seabed again. For a more detailed description of the seismic operation, please refer to the application (Western Geophysical, 1998).

Depending upon ambient conditions and the sensitivity of the receptor, underwater sounds produced by open water seismic operations may be detectable a substantial distance away from the activity. Any sound that is detectable is (at least in theory) capable of eliciting a disturbance reaction by a marine mammal or of masking a signal of comparable frequency (Western Geophysical, 1998). An incidental harassment take is presumed to occur when marine mammals in the vicinity of the seismic source, the seismic vessel, other vessels, or aircraft react to the generated sounds or to visual cues.

Seismic pulses are known to cause bowhead whales to behaviorally respond within a distance of several kilometers (Richardson *et al.*, 1995). Although some limited masking of low-frequency sounds (e.g., whale calls) is a possibility, the intermittent nature of seismic source pulses (1 second in duration every 6 to 12 seconds) will limit the extent of masking. Bowhead whales are known to continue calling in the presence of seismic survey sounds, and their calls can be heard between seismic pulses (Richardson *et al.*, 1986). Masking effects are expected to be absent in the case of belukhas, given that sounds important to them are predominantly at much higher frequencies than are airgun sounds (Western Geophysical, 1998).

Hearing damage is not expected to occur during the project. It is not known whether a marine mammal very close to an airgun array would be at risk of temporary or permanent hearing impairment, but temporary threshold shift is a theoretical possibility for animals within a few hundred meters (Richardson *et al.*, 1995) of the source. However, planned monitoring and mitigation measures (described later in this document) are designed to detect marine mammals occurring near the array and to avoid exposing them to sound pulses that have any possibility of causing hearing damage.

When the received levels of noise exceed some behavioral reaction threshold, cetaceans will show disturbance reactions. The levels, frequencies, and types of noise that will elicit a response vary between and within species, individuals, locations, and seasons. Behavioral changes may be subtle alterations in surface, respiration, and dive cycles. More conspicuous responses include changes in activity or aerial displays, movement away from the sound source, or complete avoidance of the area. The reaction threshold and degree of response are related to the activity of the animal at the time of the disturbance. Whales engaged in active behaviors, such as feeding, socializing, or mating, are less likely than resting animals to show overt behavioral reactions, unless the disturbance is directly threatening (Western Geophysical, 1998).

*Bowhead Whales*

Various studies (Reeves *et al.*, 1984, Fraker *et al.*, 1985, Richardson *et al.*, 1986, Ljungblad *et al.*, 1988) have reported that, when an operating seismic vessel approaches within a few kilometers, most bowhead whales exhibit strong avoidance behavior and changes in surfacing, respiration, and dive cycles. Bowheads exposed to seismic pulses from vessels more than 7.5 km (4.5 mi) away rarely showed observable avoidance of the vessel, but their surface, respiration, and dive cycles appeared altered in a manner similar to that observed in whales exposed at a closer distance (BPXA, 1996a, 1996b, Western Geophysical, 1998).

Within a 6–99 km (3.7–60 mi) range, it has not been possible to determine a specific distance at which subtle behavioral changes no longer occur (Richardson and Malme, 1993), given the high variability observed in bowhead whale behavior (BPXA, 1996a, 1996b). Analysis of the results from BPXA's 1996 seismic monitoring program does not provide conclusive evidence about the radius of avoidance of bowheads to the seismic program. The peak number of bowhead sightings was 10–20 km (6.2–12.3 mi) from shore during no-seismic periods and 20–30 km (12.3–18.6 mi) from shore during periods that may have been influenced by seismic noise. This difference was not statistically significant, but the low numbers of sightings preclude meaningful interpretation (Western Geophysical, 1998).

Inupiat whalers believe that migrating bowheads are sometimes displaced at distances considerably greater than 6 to 8 km (3.7 to 5.0 mi)(Rexford, 1996). Scientific studies done to date have limitations as discussed in part by Moore and Clark (1992) and MMS (1996). It is possible that, when additional data are available, it will be demonstrated that bowheads sometimes do avoid seismic vessels at distances beyond 6 to 8 km (3.7 to 5.0 mi). Also, whalers have mentioned that bowheads sometimes seem more ''skittish'' and more difficult to approach when seismic exploration is underway in the area. This ''skittish'' behavior may be related to the observed subtle changes in the behavior of bowheads exposed to seismic pulses from distant seismic vessels (Richardson *et al.*, 1986).

*Gray Whales*

The reactions of gray whales to seismic pulses are similar to those of bowheads. Migrating gray whales along the California coast were noted to slow their speed of swimming, turn away from seismic noise sources, and increase their respiration rates. Malme *et al.* (1983, 1984, 1988) concluded that approximately 50 percent showed avoidance when the average received

pulse level was 170 dB (re 1 μPa @ 1 m). By some behavioral measures, clear effects were evident at average pulse levels of 160+dB; less consistent results were suspected at levels of 140–160 dB.

*Belukha*

The belukha is the only species of toothed whale (*Odontoceti*) expected to be encountered in the Beaufort Sea. Because their hearing threshold at frequencies below 100 Hz (where most of the energy from airgun arrays is concentrated) is poor (125 dB re 1 μPa @ 1 m) or more depending upon frequency (Johnson *et al.*, 1989; Richardson *et al.*, 1991, 1995), belukha are not predicted to be strongly influenced by seismic noise. However, because of the high source levels of seismic pulses, airgun sounds may be audible to belukha at distances of 100 km (Richardson and Wursig, 1997). The reaction distance for belukha, although presently unknown, is expected to be less than that for bowheads, given the presumed poorer sensitivity of belukhas than that of bowheads for low-frequency sounds (Western Geophysical, 1998).

*Ringed, Largha and Bearded Seals*

No detailed studies of reactions by seals to noise from open water seismic exploration have been published (Richardson *et al.*, 1995). However, there are some data on the reactions of seals to various types of impulsive sounds (J. Parsons as quoted in Greene, *et al.* 1985; Anon., 1975; Mate and Harvey, 1985). These studies indicate that ice seals typically either tolerate or habituate to seismic noise produced from open water sources.

Underwater audiograms have been obtained using behavioral methods for three species of phocinid seals, ringed, harbor, and harp seals (*Pagophilus groenlandicus*). These audiograms were reviewed in Richardson *et al.* (1995). Below 30–50 kHz, the hearing threshold of phocinids is essentially flat down to at least 1 kHz and ranges between 60 and 85 dB (re 1 μPa @ 1 m). There are few data on hearing sensitivity of phocinid seals below 1 kHz. NMFS considers harbor seals to have a hearing threshold of 70–85 dB at 1 kHz (60 FR 53753, October 17, 1995), and recent measurements for a harbor seal indicate that, below 1 kHz, its thresholds deteriorate gradually to 97 dB (re 1 μPa @ 1 m) at 100 Hz (Kastak and Schusterman, 1995a, b).

Because no studies to date have focused on pinniped reaction to underwater noise from pulsed, seismic arrays in open water (Richardson *et al.*, 1991, 1995), as opposed to in-air exposure to continuous noise, substantive conclusions are not possible at this time. However, assuming a sound pressure level of 80–100 dB over its threshold is needed in order to cause annoyance and 130 dB for injury (pain), as is the current thought based upon human studies (Advanced Research Projects Agency and NMFS, 1995), it appears unlikely that pinnipeds would be harassed or injured by low frequency sounds from a seismic source unless they were within close proximity of the array. For permanent injury, pinnipeds would likely need to remain in the high-noise field for extended periods of time. Existing evidence also suggests that, while they may be capable of hearing sounds from seismic arrays, seals appear to tolerate intense pulsatile sounds without known effect once they learn that there is no danger associated with the noise (see, for example, NMFS/Washington Department of Wildlife, 1995). In addition, they will apparently not abandon feeding or breeding areas due to exposure to these noise sources (Richardson *et al.*, 1991) and may habituate to certain noises over time. Since seismic work is fairly common in Beaufort Sea waters, pinnipeds have been previously exposed to seismic noise and may not react to it after initial exposure.

**Other Effects**

For a discussion on the anticipated effects of ships, boats, and aircraft, on marine mammals and their food sources, please refer to the application (Western Geophysical, 1998). Information on these effects is incorporated in this document by reference (see Western Geophysical, 1998).

**Numbers of Marine Mammals Expected to be Taken**

Western Geophysical estimates that the following numbers of marine mammals may be subject to Level B harassment, as defined in 50 CFR 216.3:

| Species | Population size | Harassment takes in 1998 | |
|---|---|---|---|
| | | Possible | Probable |
| Bowhead | 8,000 | 800 | <400 |
| Gray whale | 23,000 | <10 | 0 |
| Belukha | 41,610 | 250 | <150 |
| Ringed seal | 1–1.5 million | 400 | <300 |
| Spotted seal | >200,000 | 10 | <5 |
| Bearded seal | >300,000 | 50 | <30 |

**Effects of Seismic Noise and Other Activities on Subsistence Needs**

The disturbance and potential displacement of marine mammals by sounds from seismic activities are the principle concerns related to subsistence use of the area. The harvest of marine mammals (mainly bowhead whales, ringed seals, and bearded seals) is central to the culture and subsistence economies of the coastal North Slope communities (Western Geophysical, 1998). In particular, if migrating bowhead whales are displaced farther offshore by elevated noise levels, the harvest of these whales could be more difficult and dangerous for hunters. The harvest could also be affected if bowheads become more skittish when exposed to seismic noise (Western Geophysical, 1998).

Nuiqsut is the community closest to the area of the proposed activity, and it harvests bowhead whales only during the fall whaling season. In recent years, Nuiqsut whalers typically take zero to four whales each season (Western Geophysical, 1998). Nuiqsut whalers concentrate their efforts on areas north and east of Cross Island, generally in water depths greater than 20 m (65 ft). Cross Island, the principle field camp location for Nuiqsut whalers, is located within the general area of the proposed seismic area. Thus, the possibility and timing of potential seismic operations in the Cross Island area requires Western Geophysical to provide NMFS with a Plan of Cooperation (also called the Communications and Avoidance Agreement) with North Slope Borough residents to avoid any unmitigable adverse impact on subsistence needs.

Whalers from the village of Kaktovik search for whales east, north, and west

of the village. Kaktovik is located 50 mi (80 km) east of the easternmost end of Western Geophysical's planned 1998 seismic exploration area. The westernmost reported harvest location was about 21 km (13 mi) west of Kaktovik, near 70°10′N, 144°W (Kaleak, 1996). That site is approximately 60 km (37 mi) east of the closest part of Western Geophysical's planned seismic exploration area for 1998 (Western Geophysical, 1998).

Whalers from the village of Barrow search for bowhead whales much further from the planned seismic area, >200 km (>125 mi) west (Western Geophysical, 1998).

The location of the proposed seismic activity is south of the center of the westward migration route of bowhead whales, but there is some overlap. Western Geophysical (1998) believes that, although whales may be able to hear the sounds emitted by the seismic array out to a distance of 50 km (30 mi) or more, it is unlikely that changes in migration route will occur at distances of >25 km (>15 mi). Alternatively, Inupiat whalers believe that bowheads begin to divert from their normal migration path more than 48 km (35 mi) away (MMS, 1996).

It is recognized that it is difficult to determine the maximum distance at which reactions occur (Moore and Clark, 1992). As a result, Western Geophysical will participate in a Communications and Avoidance Agreement with the whalers to reduce any potential interference with the hunt. Also, it is believed that the monitoring plan proposed by Western Geophysical (1998; also see LGL Ltd. and Greeneridge Sciences Inc, 1998) will provide information that will help resolve uncertainties about the effects of seismic exploration on the accessibility of bowheads to hunters.

While seismic exploration has some potential to influence subsistence seal hunting activities, the peak season for seal hunting is during the winter months when the harvest consists almost exclusively of ringed seals (Western Geophysical, 1998). In summer, boat crews hunt ringed, spotted and bearded seals (Western Geophysical, 1998). The most important sealing area for Nuiqsut hunters is off the Colville delta, extending as far west as Fish Creek and as far east as Pingok Island (Western Geophysical, 1998). This area overlaps with the westernmost portion of the planned seismic area. In this area, during summer, sealing occurs by boat when hunters apparently concentrate on bearded seals (Western Geophysical, 1998).

**Mitigation**

Western Geophysical plans to use biological observers to monitor marine mammal presence in the vicinity of the seismic array. To avoid the potential for serious injury to marine mammals, Western Geophysical will power down the seismic source if pinnipeds are sighted within the area delineated by the 190 dB isopleth or:

(1) within 60 m (197 ft) of a single airgun or an array of ≤60 $in^3$.

(2) within 170 m (558 ft) of an array >60 $in^3$ and ≤750 $in^3$ at <2.5 m (8.3 ft) depth;

(3) within 280 m (919 ft) of an array >60 $in^3$ and ≤750 $in^3$ operating at >2.5 m (8.3 ft) depth;

(4) within 200 m (656 ft) of an array >750 $in^3$ and ≤1500 $in^3$ operating at <2.5 m (8.3 ft) depth;

(5) within 350 m (1,148 ft) of an array >750 $in^3$ and ≤1500 $in^3$ operating at >2.5 m (8.3 ft) depth;

Western Geophysical will power down the seismic source if bowhead, gray, or belukha whales are sighted within the area delineated by the 180 dB isopleth or:

(1) within 160 m (525 ft) of a single airgun or an array of >60 $in^3$;

(2) within 660 m (2,165 ft) of an array >60 $in^3$ and ≤750 $in^3$ at <2.5 m (8.3 ft) depth;

(3) within 900 m (2,953 ft) of an array >60 $in^3$ and ≤750 $in^3$ operating at >2.5 m (8.3 ft) depth;

(4) within 700 m (2,297 ft) of an array >750 $in^3$ and ≤840 $in^3$ operating at <2.5 m (8.3 ft) depth; and

(5) within 900 m (2,953 ft) of an array >750 $in^3$ and ≤840 $in^3$ operating at >2.5 m (8.3 ft) depth;

In addition, Western Geophysical proposes to ramp-up the seismic source to operating levels at a rate no greater than 6 dB/min. If the array includes airguns of different sizes, the smallest gun will be fired first. Additional guns will be added at intervals appropriate to limit the rate of increase in source level to a maximum of 6 dB/min.

**Monitoring**

As part of its application, Western Geophysical provided a monitoring plan for assessing impacts to marine mammals from seismic surveys in the Beaufort Sea. This monitoring plan is described in Western Geophysical (1998) and in LGL Ltd. and Greeneridge Sciences Inc. (1998). Although Western Geophysical is prepared to discuss coordination of research to the extent practicable with other seismic operations, Western Geophysical is prepared to sponsor an independent program. As required by the MMPA, this monitoring plan will be subject to a peer-review panel of technical experts prior to formal acceptance by NMFS.

Preliminarily, Western Geophysical plans to conduct the following:

*Vessel-Based Visual Monitoring*

A minimum of two biologist-observers aboard the seismic vessel will search for and observe marine mammals whenever seismic operations are in progress, and for at least 30 minutes prior to planned start of shooting. These observers will scan the area immediately around the vessels with reticulated binoculars during the daytime and with night-vision equipment during the night (prior to mid-August, there are no hours of darkness). Individual watches will normally be limited to no more than 4 consecutive hours.

When mammals are detected within a safety zone designated to prevent injury to the animals (see Mitigation), the geophysical crew leader will be notified so that shutdown procedures can be implemented immediately.

*Aerial Surveys*

From September 1, 1998, until 3 days after the seismic program ends, aerial surveys will be conducted daily, weather permitting. The primary objective will be to document the occurrence, distribution, and movements of bowhead and belukha whales in and near the area where they might be affected by the seismic pulses. These observations will be used to estimate the level of harassment takes and to assess the possibility that seismic operations affect the accessibility of bowhead whales for subsistence hunting. Pinnipeds will be recorded when seen. Aerial surveys will be at an altitude of 300 m (1,000 ft) above sea level. Western Geophysical proposes to avoid overflights of the Cross Island area where whalers from Nuiqsut are based during their fall whale hunt.

Consistent with 1996 and 1997 aerial surveys in the U.S. Beaufort Sea, the daily aerial surveys are proposed to cover two grids: (1) A grid of 12 north-south lines spaced 8 km (5 mi) apart and extending from about 20 km (12.5 mi) west of the western side of the then-current seismic exploration area to 50 km (30 mi) east of its eastern edge, and from the barrier islands north to approximately the 100 m (328 ft) depth contour; and (2) a grid of 4 survey lines within the above region, also spaced 8 km (5 mi) apart and mid-way between the longer lines, to provide more intensive coverage of the area of the seismic operations and immediate surrounding waters.

When the seismic program is relocated east or west along the coast during the 1998 season, both survey grids will be relocated a corresponding distance along the coast. Information on the survey program can be found in Western Geophysical (1998) and in LGL Ltd. and Greeneridge Sciences Inc. (1998), which are incorporated in this document by reference.

*Acoustical Measurements*

The acoustic measurement program proposed for 1998 is designed to be continue work conducted in 1996 and 1997 (see BPXA, 1996a, 1997, and 1998; LGL Ltd. and Greeneridge Sciences Inc., 1996, 1997, and 1998). The acoustic measurement program is planned to include (1) boat-based acoustic measurements, (2) OBC-based acoustic measurements, (3) use of air-dropped sonobuoys and (4) bottom-mounted acoustical recorders.

The boat-based acoustical measurement program is proposed for a 7-day period in August 1998. The objectives of this survey will be as follows: (1) To measure the levels and other characteristics of the horizontally propagating seismic survey sounds from the type(s) of airgun array(s) to be used in 1998 as a function of distance and aspect relative to the seismic source vessel(s) and to water depth.

(2) To measure the levels and frequency composition of the vessel sounds emitted by vessels used regularly during the 1998 program.

(3) To obtain additional site-specific ambient noise data, which determine signal-to-noise ratios for seismic and other acoustic signals at various ranges from their sources.

Western Geophysical and its proposed consultant (Greeneridge Sciences) are investigating the use of the OBC-system to help document horizontal propagation of the seismic surveys. In addition, during late August and September, autonomous seafloor acoustic recorders will be placed on the sea bottom at 3 locations to record low-frequency sounds nearly continuously for up to 3 weeks at a time. Information includes characteristics of the seismic pulses, ambient noise, and bowhead calls. Additional data on these noise sources will be obtained from sonobuoys dropped from aircraft after September 1.

For a more detailed description of planned monitoring activities, please refer to the application and supporting document (Western Geophysical, 1998; LGL Ltd. and Greeneridge Sciences Inc., 1998).

*Estimates of Marine Mammal Take*

Estimates of takes by harassment will be made through vessel and aerial surveys. Preliminarily, Western Geophysical will estimate the number of (1) marine mammals observed within the area ensonified strongly by the seismic vessel; (b) marine mammals observed showing apparent reactions to seismic pulses (e.g., heading away from the seismic vessel in an atypical direction); (c) marine mammals subject to take by type (a) or (b) when no monitoring observations were possible; and (d) bowheads displaced seaward from the main migration corridor.

**Reporting**

Western Geophysical will provide an initial report on 1998 activities to NMFS within 90 days of the completion of the seismic program. This report will provide dates and locations of seismic operations, details of marine mammal sightings, estimates of the amount and nature of all takes by harassment, and any apparent effects on accessibility of marine mammals to subsistence users.

A final technical report will be provided by Western Geophysical within 20 working days of receipt of the document from the contractor, but no later than April 30, 1999. The final technical report will contain a description of the methods, results, and interpretation of all monitoring tasks.

**Consultation**

Under section 7 of the Endangered Species Act (ESA), NMFS completed an informal consultation on the issuance of an incidental harassment authorization for similar activities on June 26, 1997. A copy of that document is available upon request (see **ADDRESSES**). If an authorization to incidentally harass listed marine mammals is issued under the MMPA, NMFS will issue an Incidental Take Statement under section 7 of the ESA.

**National Environmental Policy Act (NEPA)**

In conjunction with the 1996 notice of proposed authorization (61 FR 26501, May 28, 1996) for open water seismic operations in the Beaufort Sea, NMFS released an EA that addressed the impacts on the human environment from issuance of the authorization and the alternatives to the proposed action. No comments were received on that document and, on July 18, 1996, NMFS concluded that neither implementation of the proposed authorization for the harassment of small numbers of several species of marine mammals incidental to conducting seismic surveys during the open water season in the U.S. Beaufort Sea nor the alternatives to that action would significantly affect the quality of the human environment. As a result, the preparation of an environmental impact statement on this action is not required by section 102(2) of NEPA or its implementing regulations. A copy of the EA is available upon request (see **ADDRESSES**).

This year's activity is a continuation of the seismic work conducted in 1996 and 1997. For Western Geophysical's 1998 application, NMFS has conducted a review of the impacts expected from the issuance of an Incidental Harassment Authorization in comparison to those impacts evaluated in 1996. As assessed in detail in this document, NMFS has preliminarily determined that there will be no more than a negligible impact on marine mammals from the issuance of the harassment authorization and that there will not be any unmitigable impacts to subsistence communities, provided the mitigation measures required under the authorization are implemented. Because the activity is substantially the same as the one conducted in 1996 and no new impacts on the environment have been identified, a new EA is not warranted and, therefore, the preparation of an Environmental Impact Statement on this action is not required by section 102(2) of NEPA or its implementing regulations.

**Conclusions**

NMFS has preliminarily determined that the short-term impact of conducting seismic surveys in the U.S. Beaufort Sea will result, at worst, in a temporary modification in behavior by certain species of cetaceans and possibly pinnipeds. While behavioral modifications may be made by these species to avoid the resultant noise, this behavioral change is expected to have a negligible impact on the animals.

As 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 seismic operations, due to the distribution and abundance of marine mammals during the projected period of activity and the location of the proposed seismic activity in waters generally too shallow and distant from the edge of the pack ice for most marine mammals of concern, the number of potential harassment takings is estimated to be small. In addition, no take by injury and/or death is anticipated, and the potential for temporary or permanent hearing impairment will be avoided through the incorporation of the mitigation

measures mentioned in this document. 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.

Because bowhead whales are east of the seismic area in the Canadian Beaufort Sea until late August/early September, seismic activities are not expected to impact subsistence hunting of bowhead whales prior to that date. After August 31, 1998, aerial survey flights for bowhead whale assessments will be initiated. Appropriate mitigation measures to avoid an unmitigable adverse impact on the availability of bowhead whales for subsistence needs will be the subject of consultation between Western Geophysical and subsistence users.

Also, while open-water seismic exploration in the U.S. Beaufort Sea has some potential to influence seal hunting activities by residents of Nuiqsut, because (1) the peak sealing season is during the winter months, (2) the main summer sealing is off the Colville Delta, and (3) the zone of influence by seismic sources on belukha and seals is fairly small, NMFS believes that Western Geophysical's seismic survey will not have an unmitigable adverse impact on the availability of these stocks for subsistence uses.

## Proposed Authorization

NMFS proposes to issue an incidental harassment authorization for the 1998 Beaufort Sea open water season for a seismic survey provided the above mentioned mitigation, monitoring, and reporting requirements are incorporated. NMFS has preliminarily determined that the proposed seismic activity would result in the harassment of only small numbers of bowhead whales, gray whales, and possibly belukha whales, bearded seals, and largha seals; would have a negligible impact on these marine mammal stocks; and would not have an unmitigable adverse impact on the availability of marine mammal stocks for subsistence uses.

## Information Solicited

NMFS requests interested persons to submit comments, and information, concerning this request (see **ADDRESSES**).

Dated: May 14, 1998.

**Patricia A. Montanio,**

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

[FR Doc. 98–13425 Filed 5–19–98; 8:45 am]

**BILLING CODE 3510–22–F**

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## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

**[I.D. 051398E]**

## Mid-Atlantic Fishery Management Council; Meetings

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

**ACTION:** Notice of public meeting.

**SUMMARY:** The Mid-Atlantic Fishery Management Council (Council) and its Comprehensive Management Committee; Committee Chairmen; Information and Education Committee; Habitat Committee; Executive Committee; and Squid, Mackerel, and Butterfish Committee will hold a public meeting.

**DATES:** The meetings will be held on Tuesday, June 2, 1998, to Thursday, June 4, 1998. See **SUPPLEMENTARY INFORMATION** for specific dates and times.

**ADDRESSES:** This meeting will be held at the Sheraton Grand Hotel, Bicentennial Park, New Bern, NC; telephone: 919–638–3585.

*Council address*: Mid-Atlantic Fishery Management Council, 300 S. New Street, Dover, DE 19904; telephone: 302–674–2331.

**FOR FURTHER INFORMATION CONTACT:** Christopher Moore, Ph.D., Acting Executive Director, Mid-Atlantic Fishery Management Council; telephone: 302–674–2331, ext. 16.

**SUPPLEMENTARY INFORMATION:** On Tuesday, June 2, the Comprehensive Management Committee will meet from 8:00–10:00 a.m. The Committee Chairmen will meet from 10:00–11:00 a.m. The Information and Education Committee will meet from 11:00 a.m. until noon. The Habitat Committee, together with the Dogfish Committee, Surfclam and Ocean Quahog Committee, Squid, Mackerel and Butterfish Committee, Habitat Advisors, and Scientific and Statistical Committee, will meet from 1:00–5:00 p.m. On Wednesday, June 3, the Executive Committee will meet from 7:00–9:00 a.m. Council will meet from 9:00–11:00 a.m. The Atlantic Mackerel, Squid, and Butterfish Committee will meet as a Council Committee of the Whole from 11:00 until noon. Council will meet from 1:00–2:00 p.m. to review the Whiting Fishery Management Plan. Council will meet from 2:00–5:00 p.m., together with the Atlantic States Marine Fisheries Commission (ASMFC) Board, to review Amendment 1 to the Bluefish Fishery Management Plan. On Thursday, June 4, Council will meet from 8:00 a.m. until 5:00 p.m.

Agenda items for this meeting are: Distribution and abundance and EFH identification and recommendations on dogfish, surfclams, ocean quahogs, and squid, mackerel, butterfish; Review and adoption of NMFS recommendations on bluefish EFH; Review and hearing adoption of NMFS consistency amendment for consistency in Northeast vessel permits (replacement and upgrade); Adoption of mackerel limited entry provisions for pubic hearing document; Review and comment on whiting, winter flounder, herring and scallop management measures; Review and adoption of Amendment 1 to the Bluefish FMP for public hearing; Review and adoption of Dogfish FMP for public hearing; Review and adoption of Monkfish FMP; Review comprehensive management matrix; Review Council newsletter, view Council websight; hear committee reports and other fishery management matters.

Although other issues not contained in this agenda may come before these groups for discussion, in accordance with the Magnuson- Stevens Fishery Conservation and Management Act, those issues may not be the subject of formal action during this meeting. Action will be restricted to those issues specifically identified in the agenda listed in this notice.

## Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Joanna Davis at the Council (see **ADDRESSES**) at least 5 days prior to the meeting date.

Dated: May 14, 1998.

**Bruce C. Morehead,**

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

[FR Doc. 98–13370 Filed 5–19–98; 8:45 am]

**BILLING CODE 3510–22–F**

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## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

**[051398D]**

## New England Fishery Management Council; Public Meetings

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