enhancement permit application had been submitted by the Waikiki Aquarium, and an enhancement permit application had been submitted by Sea Life Park Hawaii. The requested permits have been issued under the authority of the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361 *et seq.*), the regulations governing the taking and importing of marine mammals (50 CFR part 216), the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*), and the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR parts 222–226).

The permits authorize continued captive maintenance, enhancement, and research (at the Waikiki Aquarium only) on endangered Hawaiian monk seals. The permits will expire in 5 years.

In compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), an environmental assessment was prepared analyzing the effects of the permitted activities. After a Finding of No Significant Impact, the determination was made that it was not necessary to prepare an environmental impact statement.

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

Dated: May 26, 2006.

P. Michael Payne,

Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service.

[FR Doc. E6–8621 Filed 6–1–06; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[I.D. 042706C]

Marine Mammals and Endangered Species; National Marine Fisheries Service File No. 1008–1637; U.S. Fish and Wildlife Service File No. MA100875

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

ACTION: Issuance of permit.

SUMMARY: Notice is hereby given that John Wise, Ph.D., Maine Center for Toxicology and Environmental Health, University of Southern Maine, P.O. Box 9300, Portland, ME 04104, has been issued an amendment to Permit No. 1008–1637–01 to receive, import, and export marine mammals parts for purposes of scientific research.

DATES: Written, telefaxed, or e-mail comments must be received on or before July 3, 2006.

ADDRESSES: The permit and related documents are available for review upon written request or by appointment (See **SUPPLEMENTARY INFORMATION**).

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

SUPPLEMENTARY INFORMATION: On June 20, 2005, notice was published in the **Federal Register** (70 FR 35396) that a request for an amendment to scientific research permit No. 1008–1637–01 had been submitted by the above-named individual. The requested permit amendment has been issued under the authority of the Marine Mammal Protection Act of 1972, as amended (16 U.S.C. 1361 *et seq.*), the Regulations Governing the Taking and Importing of Marine Mammals (50 CFR parts 18 and 216), the Endangered Species Act of 1973, as amended (ESA; 16 U.S.C. 1531 *et seq.*), the regulations governing the taking, importing, and exporting of endangered and threatened species (50 CFR parts 17 and 222–226), and the Fur Seal Act of 1966, as amended (16 U.S.C. 1151 *et seq.*).

The permit amendment authorizes Dr. Wise to receive, import, and export species under the jurisdiction of the USFWS, authorizes world-wide import and export, and extends the permit 5 years.

In compliance with the National Environmental Policy Act of 1969 (42 U.S.C. 4321 *et seq.*), a final determination has been made that the activity proposed is categorically excluded from the requirement to prepare an environmental assessment or environmental impact statement.

Documents may be reviewed in the following locations:

Permits, Conservation and Education Division, Office of Protected Resources, NMFS, 1315 East-West Highway, Room 13705, Silver Spring, MD 20910; phone (301)713–2289; fax (301)427–2521;

Northwest Region, NMFS, 7600 Sand Point Way NE, BIN C15700, Bldg. 1, Seattle, WA 98115–0700; phone (206)526–6150; fax (206)526–6426;

Alaska Region, NMFS, P.O. Box 21668, Juneau, AK 99802–1668; phone (907)586–7221; fax (907)586–7249;

Southwest Region, NMFS, 501 West Ocean Blvd., Suite 4200, Long Beach, CA 90802–4213; phone (562)980–4001; fax (562)980–4018;

Pacific Islands Region, NMFS, 1601 Kapiolani Blvd., Rm 1110, Honolulu, HI 96814–4700; phone (808)973–2935; fax (808)973–2941;

Northeast Region, NMFS, One Blackburn Drive, Gloucester, MA 01930–2298; phone (978)281–9200; fax (978)281–9371;

Southeast Region, NMFS, 263 13th Avenue South, Saint Petersburg, Florida 33701; phone (727)824–5312; fax (727)824–5309; and

U.S. Fish and Wildlife Service, Division of Management Authority, 4401 North Fairfax Drive, Room 700, Arlington, VA 22203 (1–800–358–2104).

Dated: May 15, 2006.

Stephen L. Leathery,

Chief, Permits, Conservation and Education Division, Office of Protected Resources, National Marine Fisheries Service.

Dated: May 15, 2006.

Charlie R. Chandler,

Chief, Branch of Permits, Division of Management Authority, U.S. Fish and Wildlife Service.

[FR Doc. 06–5054 Filed 6–1–06; 8:45 am]

BILLING CODE 3510–22–S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 032906E]

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 GX Technologies, Inc of Houston, TX (GXT) for an Incidental Harassment Authorization (IHA) to take small numbers of marine mammals, by harassment, incidental to conducting a marine geophysical program, including deep seismic surveys, on oil and gas lease blocks located on Outer Continental Shelf (OCS) waters in the Chukchi Sea. Under the Marine Mammal Protection Act (MMPA), NMFS

is requesting comments on its proposal to issue an IHA to GXT to incidentally take, by harassment, small numbers of several species of marine mammals between June and November, 2006 incidental to conducting seismic surveys.

DATES: Comments and information must be received no later than July 3, 2006.

ADDRESSES: 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 one of the contacts listed here. The mailbox address for providing email comments is *PR1.032906E @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 is also available at: *http://www.nmfs.noaa.gov/pr/permits/incidental.htm***✖***sign;iha*.

A copy of Minerals Management Service's (MMS) Programmatic Environmental Assessment (PEA) is available on-line at: *http://www.mms.gov/alaska/ref/eis__ea.htm*.

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

FOR FURTHER INFORMATION CONTACT: Kenneth Hollingshead or Jolie Harrison, Office of Protected Resources, NMFS, (301) 713–2289.

SUPPLEMENTARY INFORMATION:

Background

Sections 101(a)(5)(A) and (D) of the MMPA (16 U.S.C. 1361 *et seq.*) direct the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers 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 that 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

On March 28, 2006, NMFS received an IHA application from GXT to take several species of marine mammals incidental to conducting a marine seismic survey in the Chukchi and Beaufort Seas. On March 31, 2006, GXT notified NMFS that it would not be conducting surveys in the U.S. Beaufort Sea, but would instead conduct seismic surveys in the Canadian Beaufort Sea.

GXT plans to collect seismic reflection data that reveal the sub-bottom profile for assessments of petroleum reserves in the area. Ultra-deep 2D lines such as those to be collected are used to better evaluate the evolution of the petroleum system at the basin level, including identifying source rocks, migration pathways, and play types. All planned geophysical data acquisition activities will be conducted by GXT. The geophysical survey will be performed from the *M/V Discoverer II*.

The *M/V Discoverer II* will arrive in Dutch Harbor about June 1st where it will be resupplied and the crew will change in preparation for the beginning of seismic surveys in the Chukchi Sea. Depending on ice conditions, the vessel will mobilize to arrive off Cape Lisburne and begin survey data acquisition as soon as possible; the expected date is June 15, 2006, depending upon ice conditions. Two alternative schedule scenarios are planned depending on the seasonal ice conditions encountered in 2006.

The primary (and most likely) scenario entails operations beginning in the Chukchi Sea about July 10, 2006. Collection of seismic data will continue there until about July 25th or whenever there is sufficient open water near Point Barrow and in the Alaskan Beaufort Sea to allow passage east into the Canadian Beaufort Sea. The *M/V Discoverer II* will then proceed out of the Chukchi Sea, traverse the Alaskan Beaufort Sea, and begin surveying within the Canadian Beaufort Sea. Seismic operations will continue in the Canadian Beaufort Sea until all planned seismic lines have been completed, or new ice begins forming in the fall. The vessel will then travel west across the Beaufort Sea and return to the Chukchi Sea to complete any lines not surveyed in July, or until weather and sea ice force an end to the survey season, which is not expected to continue past November 30, 2006.

The second scenario will occur only if sea ice in the Beaufort Sea does not move far enough offshore to allow the *M/V Discoverer II* to travel to the Canadian Beaufort. In that case, the vessel will continue operations in the Chukchi Sea until all survey lines there are completed. The *M/V Discoverer II* will then exit the area and transit to Dutch Harbor to de-mobilize. Helicopter operations are not planned as a part of the seismic survey and would occur only in the case of an emergency.

The total seismic survey program, if it can be completed, will consist of a total of about 5302 km (3294.5 mi) of surveys, not including transits when the airguns are not operating. Water depths within the study area are 30–3800 m (98–12467 ft). Approximately 14 percent of the survey (about 742 km (461 mi)) will occur in water depths greater than 500 m (1640 ft), 5 percent of the survey (about 265 km (165 mi)) will be conducted in water 200–500 m (656–1640 ft) deep, and most (81 percent) of the survey (about 4295 km (2669 mi)) will occur in water less than 200 m (656 ft). None of the survey will take place in nearshore waters within 25 km (15.5 mi) of the coast (the Chukchi polynya zone).

The *M/V Discoverer II* will tow an airgun array directly astern and a single hydrophone streamer up to 9 km long. The array will consist of 36 sleeve airguns (eight 40 in^3, four 70 in^3, four

80 in^3, tweleve 100 in^3, and eight 150 in^3) that produce a total discharge of 3320 in^3. The vessel will travel along pre-determined lines at about 4–5 knots while the airgun array discharges about every 20 seconds (shot interval about 46 m (151 ft). The towed hydrophone streamer will receive the reflected signals and transfer the data to an on-board processing system. The proposed survey lines cover a large portion of the Chukchi Sea, and tie together known wells, core locations, fault lines and other geophysical points of interest. Specifications of the *M/V Discoverer II* and the 36–airgun array that will be used can be found in GXT's application (Appendices A and B).

The survey consists of a large grid of 14 lines oriented to connect previous well locations and core sample locations as well as geological structures in the sub-surface. The extent of the lines allows flexibility to mitigate any interaction with seasonal subsistence hunting as well as species migration patterns. GXT has restricted its survey lines along the shore to the area of the MMS lease sales (greater than 25 km (15.5 mi) offshore) to exclude the nearshore Chukchi polynya, through which marine mammals migrate in the spring. Lines will be chosen based on marine mammal migration and subsistence hunting, as well as ice movement and geophysical importance. If heavy ice conditions are encountered in the northern portions of the survey area, some trackline planned for that region may be shifted to ice-free waters within the central or southern portions of the survey area. There will be additional seismic operations associated with airgun testing, start up, and repeat coverage of any areas where initial data quality is sub-standard. In addition to the airgun array, a pinger system will be used to position the 36–airgun array and streamer relative to the vessel.

The *M/V Discoverer II* will serve as the platform from which vessel-based marine mammal observers will watch for marine mammals before and during airgun operations (see Mitigation and Monitoring later in this document). A ''chase boat'' will be used to protect the streamer from damage and otherwise lend support to the *M/V Discoverer II*. It will not be introducing sounds into the water beyond those associated with normal vessel operations.

Characteristics of Airgun Pulses

Discussion of the characteristics of airgun pulses was provided in several previous **Federal Register** documents (see 69 FR 31792 (June 7, 2004) or 69 FR 34996 (June 23, 2004)) and is not repeated here. Additional information can be found in the MMS PEA and Appendix C in GXT's application. Reviewers are encouraged to read these documents for additional information.

Safety Radii

The rms (root mean square) received sound pressure levels that are used as impact criteria for marine mammals in U.S. marine mammal research are not directly comparable to the peak or peak-to-peak values normally used by geophysicists to characterize source levels of airguns (GXT IHA Application, Appendix C). The measurement units used to describe airgun sources, peak or peak-to-peak dB, are always higher than the rms dB referred to in much of the biological literature and by NMFS. A measured broadband received level of 160 dB re 1 microPa (rms) in the far field would typically correspond to a peak measurement of about 170 to 172 dB, and to a peak-to-peak measurement of about 176 to 178 decibels, as measured for the same pulse received at the same location (Greene, 1997; McCauley *et al.*,1998, 2000a). The precise difference between rms and peak or peak-to-peak values for a given pulse depends on the frequency content and duration of the pulse, among other factors. However, the rms level is always lower than the peak or peak-to-peak level for an airgun-type source.

Received sound fields have been modeled by GXT using the Gundalf software suite (Gundalf, 2002) for the 36–airgun array that will be used during this survey (GXT IHA Application Appendix B). GXT used an advanced version of the Gundalf modeling program to estimate the rms received sound levels (in dB re 1 microPa) at different distances from the seismic source on a broadband basis (0–256 Hz). These estimates are believed by GXT to be conservative (i.e., likely to overestimate the distance at which received levels will be ≥160 dB) and most applicable to the 36–airgun array discharging 3320 in^3 in water depths between 200 and 500 m (656–1640 ft), or ''intermediate depths.'' The safety radii are expected by GXT to be smaller in ''deep'' (greater than 500 m) and ''shallow'' (less than 200 m) water. Empirical data do not exist for this airgun array's sound propagation, so those data will be collected at the beginning of seismic operations. During this initial period, a 1.5X precautionary factor will be applied to the 190 dB and 180 dB radii listed here in Table 1, for use as shutdown radii for marine mammals in the water. Once empirical measurements of the sound produced by GXT's airgun array have been collected, the safety radii presented in Table 1 may be adjusted to reflect those results.

For purposes of estimating sound exposures in this document, the intermediate depth radii (expected by GXT to be the largest of the radii for any of the three water depth categories) will be used along tracklines occurring in all three depth categories. GXT believes this precautionary procedure will likely overestimate the area ensonified and, therefore, the numbers of marine mammals exposed to various applicable received sound levels.

As discussed in detail later in this document (see Mitigation), the airguns will be powered down immediately (or shut down if necessary) when marine mammals are detected within or about to enter the appropriate ≥180 dB or ≥190 dB radii. A single 40 in^3 sleeve airgun will be used as the power down source. The 160–190 dB re 1 microPa (rms) radii for this source will be measured during acoustic verification measurements at the beginning of seismic shooting.

TABLE 1. Estimated distances to which sound levels ≥190, 180, and 160 dB re 1 μPa (rms) might be received from a 36-airgun array (8 × 40 in^3, 4 × 70 in^3, 4 × 80 in^3, 12 × 100 in^3, 8 × 150 in^3) that will be used during the seismic survey. The ≥190 and ≥180 dB radii will be scaled upward by a factor of 1.5× when defining the shut-down radii to be applied before empirical sound level data are collected for this airgun array. The shut-down and assumed harassment radii used during the survey will be adjusted depending on results of empirical measurements conducted at the start of seismic shooting, and may vary with depth. A single 40 in^3 G. gun will be used during power downs, and empirical measurements of that source will be made at the start of seismic shooting to determine the power down safety radii. Distances are based on Gundalf model computations provided by GXT (Gundalf 2002).

		Estimated Distances for Received Levels (m)		
Seismic Source Volume	Water depth	**190 dB** (shut-down criterion for pinnipeds)	**180 dB** (shut-down criterion for cetaceans)	**160 dB** (assumed onset of behavioral harassment)
3320 in^3 (36-airgun array)	<200 m	60	250	6000
	200–500 m	60	250	6000
	>500 m	60	250	6000

Description of Habitat and Marine Mammals Affected by the Activity

A detailed description of the Chukchi Sea ecosystem and its associated marine mammals can be found in several documents, including the MMS PEA and does not need to be repeated here.

Marine Mammals

The Chukchi Seas support a diverse assemblage of marine mammals, including bowhead whales (*Balaena mysticetus*), gray whales (*Eschrichtius robustus*), beluga whales (*Delphinapterus leucas*), killer whales (*Orcinus orca*), harbor porpoise (*Phocoena phocoena*), ringed seals (*Phoca hispida*), spotted seals (*Phoca largha*), bearded seals (*Erignathus barbatus*), walrus (*Odobenus rosmarus*) and polar bears (*Ursus maritimus*). These latter two species are under the jurisdiction of the U.S. Fish and Wildlife Service (USFWS) and are not discussed further in this document. Abundance estimates of these species can be found in Table 2 in GXT's application. Descriptions of the biology and distribution of the marine mammal species under NMFS' jurisdiction can be found in GXT's application, MMS' PEA, and several other documents (Corps of Engineers, 1999; Lentfer, 1988; MMS, 1992, 1996; Hill *et al.*, 1999). Information on marine mammal hearing capabilities can be found in GXT's application.

Information on these species can also be found in NMFS Stock Assessment Reports. The Alaska stock assessment document is available at: *http://www.nmfs.noaa.gov/pr/readingrm/MMSARS/sar2003akfinal.pdf*. Updated species reports are available at: *http://www.nmfs.noaa.gov/pr/readingrm/MMSARS/2005alaskasummarySARs.pdf*. Please refer to these documents for information on these species.

Potential Impacts of Seismic Surveys on Marine Mammals

Disturbance by seismic noise is the principal means of taking by this activity. Support vessels and marine mammal survey aircraft (if required) may provide a potential secondary 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 several 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.

Potential Effects of Seismic Airgun Arrays on Marine Mammals

GXT believes that the effects of sounds from airguns might include one or more of the following: (1) Tolerance; (2) masking of natural sounds; (2) behavioral disturbance; and (3) at least in theory, hearing impairment and other non-auditory physical effects (Richardson *et al.*, 1995). Discussion on marine mammal tolerance to noise, masking effects of noise, temporary or permanent hearing impairment, and non-auditory effects can be found in GXT's IHA application and previous IHAs for seismic activities (e.g., see 69 FR 74906, December 14, 2004). In summary, GXT believes that it is unlikely that there would be any cases of temporary or permanent hearing impairment, non-auditory physical effects or strandings. However, because of public interest in potential behavioral disturbance and marine mammal strandings by seismic arrays, NMFS has provided GXT's analysis of those topics in this document.

NMFS has also provided information previously on the potential effects of noise on marine mammal species expected to be in the Chukchi Sea region (see 71 FR 26055, May 3, 2006). Readers are encouraged to review those documents for additional information.

Behavioral Disturbance

Disturbance to marine mammals includes a variety of effects, including subtle changes in behavior, more conspicuous changes in activities, and displacement. Reactions to sound, if any, depend on species, state of maturity, experience, current activity, reproductive state, time of day, and many other factors. Given the many uncertainties in predicting the quantity and types of impacts of noise on marine mammals, it is common practice to estimate how many mammals will be present within a particular distance of industrial activities, or exposed to a particular level of industrial sound. The sound criteria used to estimate how many marine mammals might be disturbed to some biologically-important degree by a seismic program are based on behavioral observations during studies of several species. However, information is lacking for many species. Detailed studies have been done on humpback, gray, and bowhead whales, and on ringed seals. Less detailed data are available for some other species of baleen whales, sperm whales, and small whales.

Baleen Whales

According to GXT, baleen whales generally tend to avoid operating airguns, but avoidance radii are quite variable. Whales are often reported to show no overt reactions to pulses from large arrays of airguns at distances beyond a few kilometers, even though the airgun pulses remain well above ambient noise levels out to much longer distances. However, baleen whales exposed to strong noise pulses from airguns often react by deviating from their normal migration route and/or interrupting their feeding and moving away (see GXT's IHA Application Appendix C for detailed information). In the case of migrating gray and bowhead whales, the observed changes in behavior appeared to be of little or no biological consequence to the animals. They simply avoided the sound source by displacing their migration route to varying degrees, but within the natural boundaries of the migration corridors.

Studies of gray, bowhead, and humpback whales have determined that received levels of pulses in the 160–170 dB re 1 microPa rms range seem to cause obvious avoidance behavior in a substantial fraction of the animals exposed. In many areas, seismic pulses from large arrays of airguns diminish to those sound levels at distances ranging from 4.5 to 14.5 km (2.8 to 9 mi) from the source. A substantial proportion of the baleen whales within those distances may show avoidance or other strong disturbance reactions to the airgun array. Subtle behavioral changes sometimes become evident at somewhat lower received levels, and recent studies (see Appendix C) show that some species of baleen whales, notably bowhead and humpback whales, at times show strong avoidance at received levels lower than 160–170 dB re 1 microPa rms. Bowhead whales migrating west across the Alaskan Beaufort Sea in autumn, in particular, are unusually responsive, with substantial avoidance occurring out to distances of 20–30 km (12.4–18.6 mi) from a medium-sized airgun source (Miller *et al.*, 1999; Richardson *et al.*, 1999; see Appendix C). More recent research on bowhead whales (Miller *et al.*, 2005) corroborates earlier evidence that, during the summer feeding season, bowheads are not as sensitive to seismic sources. In summer, bowheads typically begin to show avoidance reactions at a received level of about 160–170 dB re 1 microPa rms (Richardson *et al.*, 1986; Ljungblad *et al.*, 1988; Miller *et al.*, 1999). The GXT project is to be partly in summer, when feeding bowheads might be encountered (although the primary bowhead summer feeding grounds are far to the east in the Canadian Beaufort Sea), and partly in autumn, when the bowheads are commonly involved in migration (though bowheads also continue to feed in autumn).

Malme *et al.* (1986, 1988) studied the responses of feeding eastern gray whales to pulses from a single 100 in^3 airgun off St. Lawrence Island in the northern Bering Sea. They estimated, based on small sample sizes, that 50 percent of feeding gray whales ceased feeding at an average received pressure level of 173 dB re 1 microPa on an (approximate) rms basis, and that 10 percent of feeding whales interrupted feeding at received levels of 163 dB. Those findings were generally consistent with the results of experiments conducted on larger numbers of gray whales that were migrating along the California coast, and on observations of Western Pacific gray whales feeding off Sakhalin Island, Russia (Johnson, 2002).

Data on short-term reactions (or lack of reactions) of cetaceans to impulsive noises do not necessarily provide information about long-term effects. It is not known whether impulsive noises affect reproductive rate or distribution and habitat use in subsequent days or

years. However, gray whales continued to migrate annually along the west coast of North America despite intermittent seismic exploration and much ship traffic in that area for decades (Malme *et al.*, 1984). Bowhead whales continued to travel to the eastern Beaufort Sea each summer despite seismic exploration in their summer and autumn range for many years (Richardson *et al.*, 1987). Populations of both gray whales and bowhead whales grew substantially during this time. In any event, the brief exposures to sound pulses from the proposed airgun source are highly unlikely to result in prolonged effects.

Toothed Whales

Little systematic information is available about reactions of toothed whales to noise pulses. Few studies similar to the more extensive baleen whale/seismic pulse work previously summarized (and discussed in more detail in Appendix C of GXT's IHA application) have been reported for toothed whales. However, systematic work on sperm whales is underway (Tyack et al., 2003), and there is an increasing amount of information about responses of various odontocetes to seismic surveys based on monitoring studies (e.g., Stone, 2003; Smultea *et al.*, 2004; Moulton and Miller, in press).

Seismic operators and marine mammal observers sometimes see dolphins and other small toothed whales near operating airgun arrays, but in general there seems to be a tendency for most delphinids to show some limited avoidance of seismic vessels operating large airgun systems. However, some dolphins seem to be attracted to the seismic vessel and floats, and some ride the bow wave of the seismic vessel even when large arrays of airguns are firing. Nonetheless, there have been indications that small toothed whales sometimes move away, or maintain a somewhat greater distance from the vessel, when a large array of airguns is operating than when it is silent (*e.g.*, Goold, 1996a,b,c; Calambokidis and Osmek, 1998; Stone 2003). The beluga may be a species that (at least at times) shows long-distance avoidance of seismic vessels. Aerial surveys during seismic operations in the southeastern Beaufort Sea recorded much lower sighting rates of beluga whales within 10–20 km of an active seismic vessel. These results were consistent with the low number of beluga sightings reported by observers aboard the seismic vessel, suggesting that some belugas might be avoiding the seismic operations at distances of 10–20 km (6.2–12.4 mi)(Miller *et al.*, 2005).

Captive bottlenose dolphins and (of more relevance in this project) beluga whales exhibit changes in behavior when exposed to strong pulsed sounds similar in duration to those typically used in seismic surveys (Finneran *et al.*, 2002, 2005). However, the animals tolerated high received levels of sound (pk-pk level >200 dB re 1 microPa) before exhibiting aversive behaviors. With the presently-planned seismic source, such levels would be limited to distances less than 200 m (656 ft) of the 36–airgun array in shallow water. The reactions of belugas to the GXT survey are likely to be more similar to those of free-ranging belugas exposed to airgun sound (Miller *et al.*, 2005) than to those of captive belugas exposed to a different type of strong transient sound (Finneran *et al.*, 2000, 2002).

Odontocete reactions to large arrays of airguns are variable and, at least for delphinids, seem to be confined to a smaller radius than has been observed for mysticetes (see GXT IHA Application, Apppendix C).

Pinnipeds

Pinnipeds are not likely to show a strong avoidance reaction to the airgun sources that will be used. Visual monitoring from seismic vessels has shown only slight (if any) avoidance of airguns by pinnipeds, and only slight (if any) changes in behavior (see GXT's IHA Application, Appendix C). Ringed seals frequently do not avoid the area within a few hundred meters of operating airgun arrays (Harris *et al.*, 2001; Moulton and Lawson, 2002; Miller *et al.*, 2005). However, initial telemetry work suggests that avoidance and other behavioral reactions by two other species of seals to small airgun sources may at times be stronger than evident to date from visual studies of pinniped reactions to airguns (Thompson *et al.*, 1998). Even if reactions of the species occurring in the present study area are as strong as those evident in the telemetry study, reactions are expected to be confined to relatively small distances and durations, with no long-term effects on pinniped individuals or populations.

Strandings and Mortality

Marine mammals close to underwater detonations of high explosives can be killed or severely injured, and the auditory organs are especially susceptible to injury (Ketten *et al.*, 1993; Ketten, 1995). Airgun pulses are less energetic and have slower rise times, and there is no evidence that they can cause serious injury, death, or stranding even in the case of large airgun arrays. However, the association of mass strandings of beaked whales with several naval exercises using mid-frequency tactical sonar and, in one case, a scientific seismic survey, has raised the possibility that beaked whales exposed to strong pulsed sounds may be especially susceptible to injury and/or behavioral reactions that can lead to stranding. Appendix C in GXT's application provides additional details.

Seismic pulses and mid-frequency sonar pulses are quite different. Sounds produced by airgun arrays are broadband with most of the energy below 1 kHz. Typical military mid-frequency sonars operate at frequencies of 2–10 kHz, generally with a relatively narrow bandwidth at any one time and are directed horizontally, not directly downward as is the case with seismic arrays. Thus, it is not appropriate to assume that there is a direct connection between the effects of military sonar and seismic surveys on marine mammals. .

In September, 2002, there was a stranding of two Cuvier's beaked whales in the Gulf of California, Mexico, when the research vessel *Maurice Ewing* was operating a 20 airgun, 8490 in^3 array in the general area. The link between the stranding and the seismic surveys was inconclusive and not based on any physical evidence (Hogarth, 2002; Yoder, 2002). Nonetheless, that incident plus the incidents involving beaked whale strandings near naval exercises suggests a need for caution in conducting seismic surveys in areas occupied by beaked whales. However, no beaked whales are found within the GXT project area and the planned monitoring and mitigation measures are expected to minimize any possibility for mortality of other species.

Potential Effects of Pinger Signals on Marine Mammals

A pinger system (DigiRANGE I and II, Input/Output, Inc.) will be used during seismic operations to position the airgun array and hydrophone streamer relative to the vessel. Sounds from the pingers are very short pulses, occurring for 10 ms, with source level approximately 180 dB re 1 microPa @ 1 m at 55 kHz, approximately 188 dB re microPa @ 1 m at 75 kHz, and approximately 184 dB re 1 microPa @ 1 m at 95 kHz. One pulse is emitted on command from the operator aboard the source vessel, which under normal operating conditions is approximately once every 10 sec. Most of the energy in the sound pulses emitted by this pinger is at very high frequencies between 50 and 100 kHz. The signal is omnidirectional.

The pinger produces sounds that are above the range of frequencies produced

or heard by many of the marine mammals expected to occur in the study area. However, the beluga whale produces echolocation sounds (clicks) within the 50–100 kHz range (Au *et al.*, 1985, 1987; Au, 1993), and belugas have good hearing sensitivity across this ultrasonic frequency band (White *et al.*, 1978; Johnson *et al.*, 1989). In the event that killer whales or harbor porpoises are encountered, they could also hear the pinger signals. Some seals also can hear sounds at frequencies up to somewhat above 55 kHz. Baleen whales would not hear sounds at and above 55 kHz.

Masking

Marine mammal communications will not be masked appreciably by the pinger signals. This is a consequence of the relatively low power output, low duty cycle, and brief period when an individual mammal is likely to be within the area of potential effects. Also, in the case of seals, the pulses do not overlap with the predominant frequencies in the calls, which would avoid significant masking. As baleen whales would not hear sounds at and above 55 kHz, the pinger would have no effect on them.

Behavioral Responses

Marine mammal behavioral reactions to other pulsed sound sources are discussed under seismic impacts, and responses to the pinger are likely to be similar to those for other pulsed sources if received at the same levels. However, the pulsed signals from the pinger are much weaker than those from airguns. Therefore, behavioral responses are not expected unless marine mammals are very close to the source. In GXT's project, odontocetes and seals are the types of marine mammals that might hear the pings if these animals were close to the source. The maximum reaction that might be expected would be a startle reaction or other short-term response.

Hearing Impairment and Other Physical Effects

As source levels of the pinger are much lower than those of the airguns, it is unlikely that the pinger produces pulse levels strong enough to cause temporary hearing impairment or (especially) physical injuries even in an animal that is (briefly) in a position near the source.

Potential Numbers of Marine Mammals that Might be Exposed to Sound Pressure Levels of 160 dB and Higher (Level B Harassment)

The methodology used, and the assumptions made, by GXT to estimate incidental take by Level B harassment, at sound pressure levels at 160 dB or above, by seismic and the numbers of marine mammals that might be affected during the proposed seismic survey area in the Chukchi Sea are presented in the GXT application. This document provides here the estimates of the number of potential sound exposure to levels 160 dB re 1 microPa (rms) or greater. While GXT believes, based on the evidence summarized in the application, that the 170–dB criterion is considered appropriate for estimating Level B harassment for delphinids and pinnipeds, which tend to be less responsive (whereas the 160–dB criterion is considered relevant for other cetaceans), NMFS has noted in the past that there is no empirical evidence to indicate that some delphinid species do not respond at the lower level (*i.e.*, 160 dB). Also, since delphinids are not found in the Chukchi Sea, this suggested new criterion is irrelevant for this action. While the application cites recent empirical information regarding responses of pinnipeds to low-frequency seismic sounds, the information cited in the application is less than convincing. As a result, NMFS proposes to continue to use the 160–dB isopleth to estimate the numbers of pinnipeds that may be taken by Level B harassment, but has also shown the estimated numbers of pinnipeds that might be taken at the higher SPL of 170 dB. However, while some autumn migrating bowheads in the Beaufort Sea have been found to react to a noise threshold closer to 130 dB re 1 microPa (rms; Miller *et al.*, 1999; Richardson *et al.*, 1999), evidence in Richardson *et al.* (1986) and Miller *et al.* (2005) indicate that the 160–dB criterion is suitable for summering bowhead whales.

The following estimates are based on a consideration of the number of marine mammals that might be disturbed appreciably by about 5302 line-km (3294 mi) of seismic surveys across the Chukchi Sea. An assumed total of 6628 km (4118 mi) of trackline in the Chukchi Sea includes a 25 percent allowance over and above the planned trackline to allow for turns and lines that might have to be repeated because of poor data quality, or for minor changes to the survey design.

The anticipated radii of influence of the pinger system are much less than those for the airgun array (for those species that can hear it). It is assumed that, during simultaneous operations of the airgun array and pinger system, any marine mammals close enough to be affected by the pingers would already be affected by the airguns. However, whether or not the airguns are operating simultaneously with the pinger system, odontocetes and seals are expected to exhibit no more than momentary and inconsequential responses to the pingers, similar to reactions from the pingers on the thousands of maritime private and commercial vessels using similar instrumentation for obtaining bathymetric information. Such reactions are not considered to constitute ''taking'' (NMFS, 2001). Therefore, no additional allowance is included for animals that might be affected by sound sources other than the airguns.

The estimates of marine mammals that might be present and, therefore, potentially disturbed are based on available data about mammal distribution and densities at different locations and times of the year. The proposed survey covers a large area in the Chukchi Sea in two different seasons. The estimates of marine mammal densities have therefore been separated both spatially and temporarily in an attempt to represent the distribution of animals expected to be encountered over the duration of the survey. Density estimates in the Chukchi Sea have been derived for two time periods, the early summer period covering the months of June and July (Table 3 in GXT's IHA application), and the late fall period including most of October and November (Table 4 in GXT's IHA application). For the Chukchi Sea, cetacean densities during the summer were estimated from effort and sighting data in Moore *et al.* (2000) and Richardson and Thomson (eds., 2002), while pinniped densities were estimated from Bengtson (2005) and Moulton and Lawson (2002).

The potential number of events when members of each species might be exposed to received levels 160 dB re 1 microPa (rms) or greater was calculated by summing the results for each season and habitat zone by multiplying:

(1) The expected species density, either ''average'' (i.e., best estimate) or ''maximum'' (see Tables 3 and 4 in GXT's IHA application),

(2) The anticipated total line-kilometers of operations with the 36–airgun array in the time period, and habitat zone to which that density applies after applying a 25 percent allowance for possible additional line kilometers (see GXT IHA application) and

(3) The cross-track distances within which received sound levels are predicted to be ≥160 (Table 1 in this document).

Some marine mammals that are estimated to be exposed, particularly migrating bowhead whales, might show avoidance reactions before being exposed to 160 dB re 1 microPa (rms). Thus, these calculations actually estimate the number of exposures to ≥160 dB that would occur if there were no avoidance of the area ensonified to that level.

For the 36–airgun array, the cross track distance is 2X the predicted 160–dB radius predicted by the Gundalf model or 6000 m (19685 ft). Applying the approach described above, 55,560 km² of open-water habitat in the Chukchi Sea would be within the 160–dB isopleth over the course of the seismic project. After adding the 25 percent contingency to the expected number of line kilometers of seismic run, the number of exposures is calculated based on 69,450 km².

The numbers of exposures in the two habitat categories (open water and ice margin) were then summed for each species. GXT's estimate of marine mammal exposures to SPL of 160 dB (and greater) is provided in Tables 5, 6, and 7 in the IHA application. Table 2 in this document is a summary of that information.

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TABLE 2. Summary of the number of potential exposures of marine mammals to received sound levels in the water of ≥160 dB during GXT's proposed seismic program in the Chukchi Sea, Alaska, ~15 June – 25 July and ~1 October – 30 November, 2006. Not all marine mammals will change their behavior when exposed to these sound levels, although some might alter their behavior somewhat when levels are lower.

	Number of Exposure to Sound Levels ≥160 dB					
	Summer		Fall		Total	
Species	**Average**	**Maximum**	**Average**	**Maximum**	**Average**	**Maximum**
Odontocetes						
Monodontidae						
Beluga	3	11	160	639	163	650
Delphinidae						
Killer whale	3	11	5	22	8	33
Phocoenidae						
Harbor porpoise	0	0	0	0	0	0
Mysticetes						
Bowhead whale	1	8	57	328	59	337
Gray whale	1	4	83	333	84	337
Minke whale	3	11	5	22	8	33
Fin whale	1	2	1	4	2	7
Total Cetaceans	11	47	313	1349	324	1396
Pinnipeds						
Bearded seal	586	2344	1190	4760	1776	7104
Spotted seal	6	23	12	47	17	70
Ringed seal	1008	4033	2047	8189	3056	12223
Harbor seal	0	0	0	0	0	0
Total Pinnipeds	1600	6401	3249	12996	4849	19397

GXT estimates that bowhead, beluga, and gray whales are the only cetaceans expected to be exposed to noise levels ≥160–dB levels. The estimates show that one endangered cetacean species (the bowhead whale) is expected to be exposed to such noise levels, unless bowheads avoid the approaching survey vessel before the received levels reach 160 dB. Migrating bowheads are likely to do so, though summering bowheads, if encountered may not. For convenience, GXT refers to either eventuality as an ''exposure''. As a result, GXT's average and maximum estimates for bowhead whale exposures are 59 and 337, respectively (Table 2). The average and maximum estimates of the number of exposures of cetaceans are beluga (163 and 650) and gray whale (84 and 337). The seasonal breakdown of these numbers is shown in Tables 5 and 6 and totaled in Table 7 in the application and Table 2 in this document. Other cetacean species may occasionally occur near the seismic areas, but given their low estimated densities in the area, they are not likely to be exposed to SPLs of 160 dB or greater.

The ringed seal is the most widespread and abundant pinniped in ice-covered arctic waters, but there is a great deal of annual variation in population size and distribution of these marine mammals. Ringed seals account for the vast majority of marine mammals expected to be encountered, and, therefore, exposed to airgun sounds with received levels ≥160 dB re 1 microPa (rms) during the proposed seismic survey. Haley and Ireland (2006) reported that 20 percent of ringed seals remained on the ice when a seismic vessel passed. Because the SPL radii for this project are assumed to be larger than those found in the Haley and Ireland (2006) project, GXT believes a larger percent of ringed seals within the 160–dB radii are likely to remain on the ice while the *M/V Discoverer II* passes. Therefore, GXT's estimates of numbers of ringed seals that might be exposed to sound levels 160 dB re 1 microPa (rms) were reduced by 50 percent to account for animals that are expected to be out of the water, and hence exposed to much lower levels of seismic sounds. The average (and maximum) estimate is that 3056 (max. 12,223) ringed seals out of a Beaufort/Chukchi Sea population of 245,048 seals might be exposed to seismic sounds with received levels ≤ 160 dB. This assumes as many as 50 percent of seals encountered in the ice margin will be hauled out on ice and not exposed to seismic sounds.

However, GXT believes that pinnipeds are not likely to react to seismic sounds unless the received levels are ≥170 dB re 1 microPa (rms), and many of those exposed to 170 dB also will not react overtly (Harris *et al.*, 2001; Moulton and Lawson, 2002; Miller *et al.*, 2005). In any event, the best and maximum estimates of numbers of ringed seals that might be exposed to sounds ≥170 dB are 514 and 2493, respectively, if 50 percent of ringed seals encountered in the ice margin were in or entered the water (see Table 7 in GXT's IHA application).

Two other species of pinnipeds are expected to be encountered during the proposed seismic survey. With Alaskan stock estimates of 300–450,000 and 1000 respectively, the bearded seal has average and maximum exposure estimates of 1776 and 7104, and the spotted seal has average and maximum exposure estimates of 17 and 70, respectively. Finally, the harbor seal is unlikely to be encountered so no exposure estimates have been made.

Effects of Seismic Noise and Other Activities on Subsistence Uses

GXT (2006) reports that marine mammals are legally hunted in Alaskan waters by coastal Alaska Natives; species hunted include bowhead and beluga whales; ringed, spotted, and bearded seals; walruses, and polar bears. The importance of each of the various species varies among the communities based largely on availability. Bowhead whales, belugas, and walruses are the marine mammal species primarily harvested during the time of the proposed seismic survey. There is little or no bowhead hunting by the community of Point Lay, so beluga and walrus hunting are of more importance there. Members of the Wainwright community do hunt bowhead whales in the spring, although bowhead whale hunting conditions there are often more difficult than elsewhere, and traditionally they do not hunt bowheads during seasons when GXT's seismic operation would occur. Depending on the level of success during the spring bowhead hunt, Wainwright residents may be very dependent on the presence of belugas in a nearby lagoon system during July and August. Barrow residents focus hunting efforts on bowhead whales during the spring and generally do not hunt beluga then. Barrow residents also hunt in the fall.

Bowhead whale hunting is the key activity in the subsistence economies of Barrow and Wainwright. The whale harvests have a great influence on social relations by strengthening the sense of Inupiat culture and heritage in addition to reinforcing family and community ties.

An overall quota system for the hunting of bowhead whales was established by the International Whaling Commission in 1977. The quota is now regulated through an agreement between NMFS and the Alaska Eskimo Whaling Commission (AEWC). The AEWC allots the number of bowhead whales that each whaling community may harvest annually (USDI/BLM, 2005).

Bowhead whales migrate around northern Alaska twice each year, during the spring and autumn, and are hunted in both seasons. Bowhead whales are hunted from Wainwright only during the spring migration and animals are not successfully harvested every year. The spring hunt there and at Barrow occurs after leads open due to the deterioration of pack ice; the spring hunt typically occurs from early April until the first week of June. The fall migration of bowhead whales that summer in the eastern Beaufort Sea typically begins in late August or September. Fall migration into Alaskan waters is primarily during September and October. However, in recent years a small number of bowheads have been seen or heard offshore from the Prudhoe Bay region during the last week of August (Treacy, 1993; LGL and Greeneridge, 1996; Greene, 1997; Greene *et al.*, 1999; Blackwell *et al.*, 2004).

The location of the fall subsistence hunt near Barrow depends on ice conditions and (in some years) industrial activities that influence the bowheads movements as they move west (Brower, 1996). In the fall, subsistence hunters use aluminum or fiberglass boats with outboards. Hunters prefer to take bowheads close to shore to avoid a long tow during which the meat can spoil, but Braund and Moorehead (1995) report that crews may (rarely) pursue whales as far as 80 km (50 mi). The autumn hunt usually begins in Barrow in mid-September, and mainly occurs in waters east and northeast of Point Barrow. The whales have usually left the Beaufort Sea by late October (Treacy, 2002a,b).

The scheduling of this seismic survey has been discussed with representatives of those concerned with the subsistence bowhead hunt, most notably the AEWC, the Barrow Whaling Captains' Association, and the North Slope Borough (NSB) Department of Wildlife Management.

The planned starting date for seismic surveys in the Chukchi Sea (about July 10) is well after the end of the spring bowhead migration and hunt at Wainwright and Barrow. Similarly, the resumption of seismic activities in the Chukchi Sea in October will occur after most subsistence whaling from Barrow

has been completed and if the hunt is still active, seismic operations will be conducted far from Barrow to avoid conflicting with subsistence hunting activities.

Beluga whales are available to subsistence hunters along the coast of Alaska in the spring when pack-ice conditions deteriorate and leads open up. Belugas may remain in coastal areas or lagoons through June and sometimes into July and August. The community of Point Lay is heavily dependent on the hunting of belugas in Kasegaluk Lagoon for subsistence meat. From 1983–1992 the average annual harvest was about 40 whales (Fuller and George, 1997). In Wainwright and Barrow, hunters usually wait until after the spring bowhead whale hunt is finished before turning their attention to hunting belugas. The average annual harvest of beluga whales taken by Barrow for 1962–1982 was five (MMS, 1996). The Alaska Beluga Whale Committee recorded that 23 beluga whales were harvested by Barrow hunters from 1987 to 2002, ranging from 0 in 1987, 1988 and 1995 to the high of 8 in 1997 (Fuller and George, 1997; Alaska Beluga Whale Committee, 2002 in USDI/BLM, 2005). GXT states that it is possible, but unlikely, that accessibility to belugas during the subsistence hunt could be impaired during the survey. However, very little of the proposed survey is within 25 km (15.5 mi) of the Chukchi coast. That means the vessel will usually be well offshore away from areas where seismic surveys would influence beluga hunting by these communities.

Because seals (ringed, spotted, bearded) are hunted in nearshore waters and the seismic survey will remain offshore of the coastal and nearshore areas of these seals, seismic surveys should not conflict with harvest activities.

Impact on Habitat

GXT states that the proposed seismic survey will not result in any permanent impact on habitats used by marine mammals, or to the food sources they utilize. Although feeding cetaceans and pinnipeds may occur in the area, the proposed activities will be of short duration in any particular area at any given time; thus any effects would be localized and short-term.

One of the reasons for the adoption of airguns as the standard energy source for marine seismic surveys was that, unlike explosives, they do not result in any appreciable fish kill. However, the existing body of information relating to the impacts of seismic on marine fish and invertebrate species, the primary food sources of pinnipeds and belugas, is very limited.

In water, acute injury and death of organisms exposed to seismic energy depends primarily on two features of the sound source: (1) the received peak pressure, and (2) the time required for the pressure to rise and decay (Hubbs and Rechnitzer, 1952; Wardle *et al.*, 2001). Generally, the higher the received pressure and the less time it takes for the pressure to rise and decay, the greater the chance of acute pathological effects. Considering the peak pressure and rise/decay time characteristics of seismic airgun arrays used today, the pathological zone for fish and invertebrates would be expected to be within a few meters of the seismic source (Buchanan *et al.*, 2004).

Therefore, NMFS has preliminarily determined that the proposed Chukchi Sea seismic program for 2006 will have negligible to low physical effects on the various life stages of fish and invertebrates or have any habitat-related effects that could cause significant or long-term consequences for individual marine mammals or their populations, since operations at any specific location will be limited in duration.

Proposed Mitigation Measures

For the proposed seismic survey in the Chukchi Sea, GXT proposes to deploy an airgun source composed of 36 sleeve airguns. The airguns comprising the array will be spread out horizontally, so that most the energy will be directed downward. GXT believes that the directional nature of this array is an important mitigating factor. This directionality will result in reduced sound levels at any given horizontal distance compared to levels expected at that distance if the source were omnidirectional with the stated nominal source.

Important mitigation factors built into the design of the survey include the fact that the spring migration and hunt for bowhead whales in Chukchi waters will be completed prior to the start of the survey. Also, it is likely that many bowhead whales have already reached Russian waters north of the Chukotsk Peninsula when surveying is expected to resume in the autumn. Thus, the density of bowhead whales encountered during the fall in the Chukchi Sea, where the migration corridor becomes bifurcated and broad, is expected to be much lower than that of the Beaufort Sea during the fall, where the migration corridor is narrow (Richardson and Thomson, 2002).

Received sound fields were modeled by GXT for the 36–airgun configuration, in relation to distance and direction from the array. The distance from the array by which received levels would have diminished to 190, 180, 160 and other levels (in dB re 1 microPa rms) are likely to depend on water depth and location. Table 1 presents the predicted sound radii for the 36–airgun array in intermediate (200–500 m (656–1640 ft)) water depths. The radii for deeper or shallower water are predicted by GXT to be smaller than those for intermediate depths.

Empirical data concerning these radii are not yet available, but will be acquired early in the 2006 field season. In addition to performing an acoustic characterization/verification of the full 36–airgun array at different depths, the output from a single 40 in^3 sleeve gun source will also be measured in order to determine the appropriate safety radius for use during power downs. A summary report on the acoustic measurements and proposed refinements to the safety radii will be made available for review shortly after the data have been collected. Until these empirical data are available, the radii predicted to be applicable to intermediate water depths (with a precautionary 1.5X adjustment) will also be applied for deep and shallow water operations when estimating the required safety radii. More detailed modeling of the airgun array may be completed prior to the beginning of the field season and the resulting 180 and 190 dB (rms) safety radii (with 1.5X factor) will be applied at the start of the season if that occurs.

The following mitigation measures, as well as marine mammal visual monitoring (discussed later in this document), will be implemented for the subject seismic surveys: (1) Speed and course alteration (provided that they do not compromise operational safety requirements); (2) power-down/shut-down procedures; and (3) ramp-up procedures.

Speed and Course Alteration

If a marine mammal is detected outside its respective safety zone (180 dB for cetaceans, 190 dB for pinnipeds) and, based on its position and the relative motion, is likely to enter the safety zone, the vessel's speed and/or direct course may, when practical and safe, be changed to avoid the mammal 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 marine mammal does not approach within the safety zone. If the mammal appears likely to enter the safety zone, further mitigative actions will be taken

(*i.e.*, either further course alterations or shut down of the airguns).

Power-down and Shut-down Procedures

A power-down involves decreasing the number of airguns in use such that the radii of the 190–dB and 180–dB zones are decreased to the extent that observed marine mammals are not in the applicable safety zone. A power-down may also occur when the vessel is moving from one seismic line to another. During a power-down, one airgun (or some other number of airguns less than the full airgun array) is operated. The continued operation of one airgun is intended to (a) alert marine mammals to the presence of the seismic vessel in the area, and (b) retain the option of initiating a ramp up to full operations under poor visibility conditions. In contrast, a shut-down occurs when all airgun activity is suspended.

If a marine mammal is detected outside the safety radius but appears likely to enter the safety radius, and if the vessel's speed and/or course cannot be changed to avoid having the mammal enter the safety radius, the airguns may (as an alternative to a complete shut down) be powered down before the mammal is within the safety radius. Likewise, if a mammal is already within the safety zone when first detected, the airguns will be powered down immediately if this is a reasonable alternative to a complete shut down. During a power-down of the 36–airgun array, the number of guns operating will be reduced to a single 40 in^3 sleeve airgun. The 190–dB (rms) safety radius around the power down source has not yet been estimated, but will be estimated before the field season and verified during acoustic verification measurements made at the start of seismic operations. If a marine mammal is detected within or near the smaller safety radius around the single 40 in^3 sleeve airgun, all airguns will be shut down.

Following a power-down, operation of the full airgun array will not resume until the marine mammal has cleared the safety zone. The animal will be considered to have cleared the safety zone if it is visually observed to have left the safety zone, or has not been seen within the zone for 15 minutes in the case of small odontocetes and pinnipeds, or has not been seen within the zone for 30 minutes in the case of mysticetes (large odontocetes do not occur within the activity area).

Shut-down Procedures

The operating airgun(s) will be shut down completely if a marine mammal approaches or enters the applicable safety radius and a power-down is not practical or adequate to reduce exposure to less than 190 or 180 dB (rms), as appropriate. The operating airgun(s) will also be shut down completely if a marine mammal approaches or enters the estimated safety radius around the reduced source (one 40 in3 sleeve gun) that will be used during a power down.

Airgun activity will not resume until the marine mammal has cleared the safety radius. The animal will be considered to have cleared the safety radius as described previously. Ramp-up procedures will be followed during resumption of full seismic operations.

Ramp-up Procedure

A ''ramp-up'' or ''soft start'' procedure will be followed when the airgun array begins operating after a specified-duration period with no or reduced airgun operations. The specified period depends on the speed of the source vessel, the size of the airgun array that is being used, and the size of the safety radii, but is often about 10 minutes or the time the vessel would reach the location of the 180–dB radius at the time of shut-down or power-down, whichever is greater.

NMFS normally requires that, once ramp up commences, the rate of ramp-up be no more than 6 dB per 5 min period. Ramp-up will likely begin with a single airgun (the smallest, or 40 in^3). The precise ramp-up procedure will be determined prior to start-up (based upon array configuration), but will follow NMFS' guideline with a ramp-up rate of no more than 6 dB per 5 min period. The standard industry procedure is to double the number of operating airguns at 5–minute intervals which is equal to about a 6 dB increase. During the ramp-up, the safety zone for the full 36–airgun array (or whatever smaller source might then be in use) will be maintained. If the complete 180–dB safety radius has not been visible for at least 30 minutes prior to the planned start of a ramp-up in either daylight or nighttime, ramp up will not commence unless at least one airgun has been operating during that period. This means that it will not be permissible to ramp up the 36–airguns from a complete shut down in thick fog when the entire 180–dB safety zone is not visible. If the entire safety radius is visible using vessel lights and/or night-vision devices (NVDs), then start up of the airguns from a complete shut down may occur at night. If one airgun has operated during a power-down period, ramp up to full power will be permissible at night or in poor visibility, on the assumption that marine mammals will either be alerted by the sounds from the single airgun and could move away, or may be detected by visual observations. Given the responsiveness of bowhead and beluga whales to airgun sounds, it can be assumed that those species, in particular, will move away during a ramp up. There have been direct observations of bowheads moving away when a single airgun begins to operate (Richardson *et al.*, 1986; Ljungblad *et al.*, 1988).

Ramp-up of the airguns will not be initiated during the day or at night if a marine mammal has been sighted within or near the applicable safety radius during the previous 15 minutes.

Mitigation for Subsistence Needs

GXT is completing negotiations on a Plan of Cooperation (POC)(also called a Conflict Avoidance Agreement (CAA)) for the proposed 2006 seismic survey in the Chukchi Sea, in consultation with representatives of communities along the Alaska coast including Pt. Hope, Pt. Lay, Wainwright, and Barrow. GXT is working with the people of these communities to identify and avoid areas of potential conflict, and provided a presentation at the AEWC mini-convention in Anchorage, AK, on March, 15 2006. Meetings with AEWC and NSB representatives also occurred at the time of the convention, and further communication is ongoing leading toward adoption of a POC/CAA. Also, GXT participated in the open water peer/stakeholder review meeting that was convened by NMFS in Anchorage on April 18–21, 2006, along with representatives of the AEWC and NSB.

The POC/CAA will cover the phases of GXT's seismic survey planned to occur in the Beaufort and Chukchi seas between July 1 and November 30, 2006. The purpose will be to identify measures that will be taken to minimize any adverse effects on the availability of marine mammals for subsistence uses, and to ensure good communication between GXT (including the project leaders and the *M/V Discoverer II*), native communities along the coast, and subsistence hunters at sea.

Subsequent meetings with whaling captains, other community representatives, the AEWC, NSB, and any other parties to the POC/CAA will be held as necessary to negotiate the terms of the POC/CAA and to coordinate the planned seismic survey operation with subsistence hunting activity.

The proposed POC/CAA may address the following: (1) operational agreement and communications procedures; (2) where/when agreement becomes

effective; (3) general communications scheme; (4) on-board Inupiat observer; identification of seasonally sensitive areas; (5) vessel navigation; (6) air navigation; (7) marine mammal monitoring activities; (8) measures to avoid impacts to marine mammals; (9) measures to avoid conflicts in areas of active whaling; (10) emergency assistance; and (11) dispute resolution process.

In the unlikely event that subsistence hunting or fishing is occurring within 5 km (3 mi) of the *M/V Discoverer II*'s trackline, or in other situations inconsistent with the CAA, the airgun operations will be suspended until the vessel is greater than 5 km (3 mi) away and otherwise in compliance with the CAA.

A signed POC/CAA provides NMFS with information to make a determination that the activity will not have an unmitigable adverse impact on the subsistence use of marine mammals. If one or both parties fail to sign the CAA, then NMFS will make the determination that the activity will or will not have an unmitigable adverse impact on subsistence use of marine mammals, and NMFS may require that the IHA contain additional mitigation measures.

Proposed Monitoring

GXT proposes to implement a marine mammal monitoring program during the present project, in order to implement the proposed mitigation measures that require real-time monitoring, to satisfy the anticipated monitoring requirements of the NMFS and USFWS IHAs, and to meet any monitoring requirements agreed to as part of the POC/CAA. The monitoring work described here has been planned as a self-contained project independent of any other related monitoring projects that may be occurring simultaneously in the same regions.

Vessel-based Visual Monitoring

Vessel-based observers will monitor marine mammals near the seismic source vessel during all daytime hours and during any power ups of the airgun(s) at night. Airgun operations will be powered down or (if necessary) shut down when marine mammals are observed within, or about to enter, designated safety radii. Vessel-based marine mammal observers (MMOs) will also watch for marine mammals near the seismic vessel for at least 30 minutes prior to the planned start of airgun operations and after any shut downs of the airgun array that do not have at least 30 minutes of continuous marine mammal observations prior to start-up. When feasible, observations will also be made during daytime periods without seismic operations (e.g., during transits).

During seismic operations when there is 24 hrs of daylight, four observers will be based aboard the vessel. As the number of hours of daylight decreases in the fall, the number of MMOs on the vessel will be reduced to three or two, if full-time visual observations are not required at night. MMOs will be appointed by GXT with NMFS and USFWS concurrence. An Alaska native resident knowledgeable about the mammals and fish of the area is expected to be included as one of the team of MMOs aboard the *M/V Discoverer II.* At least one observer, and when practical, two observers will monitor marine mammals near the seismic vessel during ongoing daytime operations and any nighttime start ups of the airguns. (There will be no periods of total darkness until mid-August.) Use of two simultaneous observers will increase the proportion of the animals present near the source vessel that are detected. MMOs will be on duty in shifts of duration no longer than 4 hours. The *M/V Discoverer II* crew will be instructed by the MMOs onboard to assist in detecting marine mammals and implementing mitigation requirements (if practical). Before the start of the seismic survey the crew will be given additional instruction by the MMOs regarding implementation of mitigation measures.

The *M/V Discoverer II* is a suitable platform for marine mammal observations. Observations will be made from either the bridge or the flying bridge, which are greater than 12 m (40 ft) above sea level. From the bridge, about 45o of the view will be obstructed directly to the stern. During daytime, the MMO(s) will scan the area around the vessel systematically with reticle binoculars (e.g., 7 50 Fujinon), and with the naked eye. During any periods of darkness, NVDs will be available (ITT F500 Series Generation 3 binocular-image intensifier or equivalent), if and when required. Laser rangefinding binoculars (Leica LRF 1200 laser rangefinder or equivalent) will be available to assist with distance estimation; these are useful in training observers to estimate distances visually, but are generally not useful in measuring distances to animals directly.

When marine mammals in the water are detected within or about to enter the designated safety radius, the airgun(s) will be powered down or shut down immediately. To assure prompt implementation of shut-downs, multiple channels of communication between the MMOs and the airgun technicians will be established. During power-downs and shut-downs, the MMO(s) will continue to maintain watch to determine when the animal(s) are outside the safety radius. Airgun operations will not resume until the animal is outside the safety radius. Marine mammals will be considered to have cleared the safety radius if they are visually observed to have left the safety radius, or if they have not been seen within the radius for 15 minutes (pinnipeds and small cetaceans) or for 30 minutes (large cetaceans).

All observations and airgun power-downs or shut-downs will be recorded in a standardized format. Data will be entered into a custom database using a notebook computer. The accuracy of the data entry will be verified by computerized validity data checks as the data are entered and by subsequent manual checking of the database. These procedures will allow initial summaries of data to be prepared during and shortly after the field program, and will facilitate transfer of the data to statistical, graphical, or other programs for further processing and archiving.

Results from the vessel-based observations will provide: (1) the basis for real-time mitigation (airgun power or shut down), (2) information needed to estimate the number of marine mammals potentially taken by harassment, which must be reported to NMFS, (3) data on the occurrence, distribution, and activities of marine mammals in the area where the seismic study is conducted, (4) information to compare the distance and distribution of marine mammals relative to the source vessel at times with and without seismic activity, and (5) data on the behavior and movement patterns of marine mammals seen at times with and without seismic activity.

Acoustic Verification and Modeling

Measurements of received sound levels as a function of distance and direction from the proposed airgun arrays will be made prior to, or at the beginning of, the seismic survey. Results of this acoustic characterization/verification will be used to refine the pre-season estimates of safety and disturbance radii applicable to the sources during the remainder of seismic operations. A preliminary report of the measurement results concerning (at minimum) the 190–dB and 180- dB (rms) safety radii will be submitted shortly after data collection.

Additionally, more extensive modeling of the sounds that will be produced by the airgun array may be completed prior to the field season. The results of this modeling, if done, will be

made available before the field season and the safety radii adjusted accordingly.

Additional Comprehensive Monitoring Plan

On April 19–20, 2006, NMFS held a scientific peer-review meeting in Anchorage, AK to discuss appropriate mitigation and monitoring measures for Arctic Ocean seismic activities in 2006. In addition to mitigation and monitoring measures proposed by Shell, the workshop participants recommended several monitoring measures to increase our knowledge of marine mammal distribution and abundance in the Chukchi Sea. These included use of passive acoustics, either towed from a vessel or set out in a series of arrays along the Chukchi Sea coast. As of the publication date of this notice, GXT is studying these recommendations and will inform NMFS prior to the close of the comment period on this document.

Other Mitigation and Monitoring Measures

The 2006 MMS Draft PEA, which was open for public comment until May 10, 2006, contains multiple alternatives with several different mitigation and monitoring measures beyond those proposed by GXT in its IHA application, such as more effective monitoring methods and expanded power-down and shut-down zones for bowhead and gray whales during certain periods of time. NMFS' final IHA (if issued) may include some portion or combination of those additional mitigation and monitoring measures.

Reporting

During the field season, NMFS proposes to require brief bi-weekly progress reports on the status of the activity and level of marine mammal interactions. A report on the preliminary results of the acoustic verification measurements, including as a minimum the measured 190 and 180 dB (rms) radii of the airgun sources, will be submitted shortly after collection of those measurements at the start of the field season. This report will specify the refinements to the safety radii that are proposed for adoption.

A report on GXT's activities and on the relevant monitoring and mitigation results will be submitted to NMFS within 90 days after the end of the cruise. The report will provide full documentation of methods, results, and interpretation pertaining to all acoustic characterization work and vessel-based monitoring. The 90–day report will summarize the dates and locations of seismic operations, and all cetacean and seal sightings (dates, times, locations, activities, associated seismic survey activities). The number and circumstances of ramp ups, power downs, shutdowns, and other mitigation actions will be reported. The report will also include estimates of the numbers of mammals affected and the nature of observed impacts on cetaceans and seals.

NMFS proposes that the Final Technical Report will contain a cumulative analysis of the data and information of the 90–day report with similar data and information from other seismic activities in the Beaufort and Chukchi seas in 2006.

Research Coordination

GXT proposes to coordinate the planned marine mammal monitoring program associated with GXT's seismic survey with other parties that may be interested in this area and/or be conducting marine mammal studies or monitoring in the same region during operations. This is expected to include a number of other seismic surveys planned for the Chukchi Sea for parts of the 2006 open water season, each of which will presumably include a marine mammal monitoring component. As determined at the April, 2006 scientific peer-review meeting in Anchorage, GXT will participate in a combined research effort to document the distribution, abundance, and disturbance responses of marine mammals in the Chukchi Sea. Coordination of the planned monitoring program with research activities that NMFS and USFWS may have scheduled will also be sought. Among other things, GXT will also coordinate with other applicable Federal, State and Borough agencies, and will comply with their requirements.

Endangered Species Act (ESA)

Under section 7 of the ESA, the MMS has begun consultation on the proposed seismic survey activities in the Beaufort and Chukchi seas during 2006. NMFS will also consult on the issuance of the IHA under section 101(a)(5)(D) of the MMPA to GXT for this activity. Consultation will be concluded prior to a determination on the issuance of an IHA.

NEPA

The MMS has prepared a PEA for the oceanographic surveys. NMFS is a cooperating agency in the preparation of the PEA. In addition, NMFS is reviewing this PEA and will either adopt it or prepare its own NEPA document before making a determination on the issuance of an IHA. A copy of the MMS PEA for this activity is available upon request and is available online (see **ADDRESSES**).

Essential Fish Habitat (EFH)

The action area has been identified and described as EFH for 5 species of Pacific salmon (pink (humpback), chum (dog), sockeye (red), chinook (king), and coho (silver)) occurring in Alaska. The issuance of this proposed incidental harassment authorization is not anticipated to have any adverse effects on EFH, and therefore no consultation is required.

Preliminary Conclusions

Summary

Based on the information provided in GXT's application and the MMS PEA, NMFS has preliminarily determined that the impact of GXT conducting seismic surveys in the northern Chukchi Sea in 2006 will have a negligible impact on marine mammals and that there will not be any unmitigable adverse impacts on their availability for taking for subsistence uses, provided the mitigation measures required under the proposed authorization are implemented and a POC/CAA is implemented.

Potential Impacts on Marine Mammals

NMFS has preliminarily determined that the relatively short-term impact of conducting seismic surveys in the U.S. Chukchi may result, at worst, in a temporary modification in behavior by certain species of marine mammals. 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 affected species and stocks of marine mammals.

While the number of potential incidental harassment takes will depend on the distribution and abundance of marine mammals in the area of seismic operations (as shown in Table 2 in the GXT IHA application), which will vary annually due to variable ice conditions and other factors, the number of potential harassment takings is estimated to be small (see Table 1 in this document) in comparison to the population estimate.

In addition, no take by death or serious injury is anticipated, and the potential for temporary or permanent hearing impairment will be avoided through the incorporation of the mitigation measures proposed for GXT's IHA. This preliminary determination is supported by: (1) the likelihood that, given sufficient notice through slow ship speed and ramp-up of the seismic

array, marine mammals (especially bowhead, gray, and beluga whales in Arctic waters) are expected to move away from seismic noise that is annoying prior to its becoming potentially injurious; (2) recent research that indicates that TTS is unlikely at SPLs as low as 180 dB re 1 microPa;(at least in delphinids); (3) the fact that injurious levels would be very close to the vessel; and (4) the likelihood that marine mammal detection ability by trained observers is close to 100 percent during daytime and remains high at night close to the seismic vessel. Finally, no known rookeries, mating grounds, areas of concentrated feeding, or other areas of special significance for marine mammals are known to occur within or near the planned areas of operations during the season of operations.

Potential Impacts on Subsistence Uses of Marine Mammals

Preliminarily, NMFS believes that the proposed seismic activity by GXT in the northern Chukchi Sea in 2006, in combination with other seismic and oil and gas programs in this area, will not have an unmitigable adverse impact on the subsistence uses of bowhead whales and other marine mammals. This preliminary determination is supported by the following: (1) Seismic activities in the Chukchi Sea will not begin until after the spring bowhead hunt is expected to have ended; (2) although unknown at this time to NMFS, the CAA conditions will significantly reduce impacts on subsistence hunters; (3) while it is possible that accessibility to belugas during the spring subsistence beluga hunt could be impaired by the survey, it is unlikely because very little of the proposed survey is within 25 km (15.5 mi) of the Chukchi coast, meaning the vessel will usually be well offshore and away from areas where seismic surveys would influence beluga hunting by communities; and (4) because seals (ringed, spotted, bearded) are hunted in nearshore waters and the seismic survey will remain offshore of the coastal and nearshore areas of these seals where natives would harvest these seals, it should not conflict with harvest activities.

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes to issue an IHA to GXT for conducting a seismic survey in the northern Chukchi Sea, provided the previously proposed mitigation, 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 a negligible impact on the affected marine mammal stocks; and would not have an unmitigable adverse impact on the availability of species or stocks for subsistence uses.

Information Solicited

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

Dated: May 25, 2006.

James H. Lecky,

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

[FR Doc. 06–5025 Filed 6–1–06; 8:45 am]

BILLING CODE 3510–22–S

COMMODITY FUTURES TRADING COMMISSION

Notice of Meeting; Sunshine Act

AGENCY HOLDING THE MEETING: Commodity Futures Trading Commission.

FEDERAL REGISTER CITATION OF PREVIOUS ANNOUNCEMENT: 71 FR 30665.

PREVIOUSLY ANNOUNCED TIME AND DATE OF THE PUBLIC HEARING: 10 a.m., Tuesday, June 27, 2005.

CHANGES IN THE HEARING: The time of the public hearing on the Issue of What constitutes a Board of Trade Located Outside of the United States Under Section 4(a) of the Commodity Exchange Act has been changed to 9 a.m.

CHANGES IN THE CONTACT PHONE NUMBER: The phone number of Duane Andresen previously read ''(202) 418–5429'' and should read ''(202) 418–5492''.

FOR FURTHER INFORMATION CONTACT: Eileen A. Donovan, 202–418–5100.

Eileen A. Donovan,

Acting Secretary of the Commission.

[FR Doc. 06–5117 Filed 5–31–06; 3:29 pm]

BILLING CODE 6351–01–M

DEPARTMENT OF DEFENSE

Office of the Secretary; Joint Military Intelligence College Board of Visitors Meeting

AGENCY: Department of Defense.

ACTION: Notice of closed meeting.

SUMMARY: Pursuant to the provisions of Subsection (d) of Section 10 of Public Law 92–463, as amended by Section 5 of Public Law 94–409, notice is hereby given that a closed meeting of the DIA Joint Military Intelligence College Board of Visitors has been scheduled as follows:

DATES: Tuesday, June 6, 2006, 0800 to 1700; and Wednesday, June 7, 2006, 0800 to 1200.

ADDRESSES: Point Military Intelligence College, Washington, DC 20340–5100.

FOR FURTHER INFORMATION CONTACT: Mr. A. Denis Clift, President, DIA Joint Military Intelligence College, Washington, DC 20340–5100 (202/231–3344).

SUPPLEMENTARY INFORMATION: The entire meeting is devoted to the discussion of classified information as defined in Section 552b(c)(1), Title 5 of the U.S. Code and therefore will be closed. The Board will discuss several current critical intelligence issues and advise the Director, DIA, as to the successful accomplishment of the mission assigned to the Joint Military Intelligence College. Due to an unforeseen delay in administrative processing, our notification does not meet the minimum 15 day advanced notification.

Dated: May 26, 2006.

L.M. Bynum,

OSD Federal Register Liaison Officer, DoD.

[FR Doc. 06–5041 Filed 6–1–06; 8:45 am]

BILLING CODE 5001–06–M

DEPARTMENT OF DEFENSE

Department of the Army; Corps of Engineers

Availability of the Final Supplemental Environmental Impact Statement for the Boston Harbor Inner Harbor Maintenance Dredging Project

AGENCY: Department of the Army, U.S. Army Corps of Engineers, DOD.

ACTION: Notice of availability.

SUMMARY: The U.S. Army Corps of Engineers, New England District has prepared a Final Supplemental Environmental Impact Statement to maintenance dredge the following Federal navigation channels: The Main Ship Channel upstream of Spectacle Island to the Inner Confluence, the upper Reserved Channel, the approach to the Navy Dry Dock, a portion of the Mystic River, and a portion of the Chelsea River (previously permitted) in Boston Harbor, MA. Maintenance dredging of the navigation channels landward of Spectacle Island is needed to remove shoals and restore the Federal navigation channels to their authorized depths. Materials dredged from the Federal channels will either be disposed at the Massachusetts Bay Disposal Site (for the material suitable for unconfined open water disposal) or, for the material not suitable for unconfined open water