

*Comment 29:* Whether to Rescind the Review with Respect to Dongguan Bon Ten Furniture Co., Ltd.

*Comment 30:* Whether to Grant Dream Rooms Furniture (Shanghai) Co., Ltd. a Separate Rate

*Comment 31:* Whether the Department Failed to Timely Initiate the Administrative Review Thereby Erroneously Choosing Orient International as a Mandatory Respondent

*Comment 32:* Separate Rate Status of Orient International

[FR Doc. E9-19666 Filed 8-14-09; 8:45 am]

BILLING CODE 3510-DS-S

## DEPARTMENT OF COMMERCE

### Foreign-Trade Zones Board

[Docket 34-2009]

#### Foreign-Trade Zone 49—Newark, New Jersey Area, Application for Subzone Status, The Swatch Group (U.S.) Inc. (Watches, Jewelry Products and Leather Goods), Secaucus, New Jersey

An application has been submitted to the Foreign-Trade Zones Board (the Board) by the Port Authority of New York and New Jersey, grantee of FTZ 49, requesting special-purpose subzone status for the distribution facility of the Swatch Group (U.S.) Inc. (Swatch), located in Secaucus, New Jersey. The application was submitted pursuant to the provisions of the Foreign-Trade Zones Act, as amended (19 U.S.C. 81a-81u), and the regulations of the Foreign-Trade Zones Board (15 CFR part 400). It was formally filed on August 7, 2009.

The Swatch facility (56,110 sq. ft., 1 acre, 160 employees) is located at 55 Metro Way, Secaucus, New Jersey. It is used for the receipt, handling, packaging, and distribution of watches, jewelry products, and leather watch cases. All of the products are sourced from abroad and some 10-15% will be exported.

FTZ procedures could exempt Swatch from customs duty payments on the foreign goods exported from the proposed subzone. On domestic sales, the company would be able to defer duty payments until merchandise is shipped from the facility and entered for consumption. Certain logistical/supply chain management efficiencies would also be realized through the use of CBP weekly entry procedures. The application indicates that the savings from FTZ procedures would help improve the facility's international competitiveness.

In accordance with the Board's regulations, Claudia Hausler of the FTZ

Staff is designated examiner to evaluate and analyze the facts and information presented in the application and case record and report findings and recommendations to the Board.

Public comment is invited from interested parties. Submissions (original and 3 copies) shall be addressed to the Board's Executive Secretary at the address below. The closing period for their receipt is October 16, 2009. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period to November 2, 2009.

A copy of the application will be available for public inspection at the Office of the Executive Secretary, Foreign-Trade Zones Board, Room 2111, U.S. Department of Commerce, 1401 Constitution Avenue, NW, Washington, DC 20230-0002 and in the "Reading Room" section of the Board's Web site, which is accessible via [www.trade.gov/ftz](http://www.trade.gov/ftz). For further information, contact Claudia Hausler at [Claudia\\_Hausler@ita.doc.gov](mailto:Claudia_Hausler@ita.doc.gov), or (202) 482-1379.

Dated: August 7, 2009.

**Andrew McGilvray,**

*Executive Secretary.*

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## DEPARTMENT OF COMMERCE

### Foreign-Trade Zones Board

[Order No. 1640]

#### Grant of Authority for Subzone Status, Hoku Materials, Inc. (Polysilicon), Pocatello, Idaho

Pursuant to its authority under the Foreign-Trade Zones Act of June 18, 1934, as amended (19 U.S.C. 81a-81u), the Foreign-Trade Zones Board (the Board) adopts the following Order:

*Whereas*, the Foreign-Trade Zones Act provides for "... the establishment ... of foreign-trade zones in ports of entry of the United States, to expedite and encourage foreign commerce, and for other purposes," and authorizes the Foreign-Trade Zones Board to grant to qualified corporations the privilege of establishing foreign-trade zones in or adjacent to U.S. Customs and Border Protection ports of entry;

*Whereas*, the Board's regulations (15 CFR Part 400) provide for the establishment of special-purpose subzones when existing zone facilities cannot serve the specific use involved, and when the activity results in a significant public benefit and is in the public interest;

*Whereas*, Boundary County, Idaho, grantee of FTZ 242, has made application to the Board for authority to establish special-purpose subzone status at the polysilicon manufacturing plant of Hoku Materials, Inc., located in Pocatello, Idaho (FTZ Docket 53-2008, filed 10/03/2008, and amended 12/31/2008);

*Whereas*, notice inviting public comment has been given in the **Federal Register** (73 FR 59597-59598, 10/09/2008); and,

*Whereas*, the Board adopts the findings and recommendations of the examiner's report, and finds that the requirements of the FTZ Act and the Board's regulations would be satisfied, and that approval of the application, as amended, would be in the public interest, if approval were subject to the condition listed below;

*Now, therefore*, the Board hereby grants authority for subzone status for activity related to the manufacture of polysilicon at the Hoku Materials, Inc., facility, located in Pocatello, Idaho (Subzone 242A), as described in the application and **Federal Register** notice, subject to the FTZ Act and the Board's regulations, including Section 400.28, and also subject to a restriction prohibiting any admission of silicon metal subject to an antidumping or countervailing duty order.

Signed at Washington, DC, this 5th day of August 2009.

**Ronald K. Lorentzen,**

*Acting Assistant Secretary of Commerce for Import Administration, Alternate Chairman, Foreign-Trade Zones Board.*

Attest:

**Andrew McGilvray,**

*Executive Secretary.*

[FR Doc. E9-19675 Filed 8-14-09; 8:45 am]

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

RIN 0648-XO99

#### Incidental Takes of Marine Mammals During Specified Activities; Low-Energy Marine Seismic Survey in the Northwest Atlantic Ocean, August 2009

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

**ACTION:** Notice; issuance of an incidental take authorization.

**SUMMARY:** In accordance with the Marine Mammal Protection Act

(MMPA) regulations, notification is hereby given that NMFS has issued an Incidental Harassment Authorization (IHA) to Rice University (Rice), for the take of small numbers of marine mammals, by Level B harassment only, incidental to conducting a low-energy marine seismic survey in the Northwest Atlantic during August 2009.

**DATES:** Effective August 12 through September 12, 2009.

**ADDRESSES:** A copy of the IHA and the application are available by writing to P. Michael Payne, Chief, Permits, Conservation, and Education Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3225 or by telephoning the contact listed here.

A copy of the application containing a list of the references used in this document may be obtained by writing to the address specified above, telephoning the contact listed below (see **FOR FURTHER INFORMATION CONTACT**), or visiting the Internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental.htm>. Documents cited in this notice may be viewed, by appointment, during regular business hours, at the aforementioned address.

Documents cited in this notice may be viewed, by appointment, during regular business hours, at the aforementioned address.

**FOR FURTHER INFORMATION CONTACT:** Howard Goldstein or 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 marine mammals by United States citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and either regulations are issued or, if the taking is limited to harassment, a notice of a proposed authorization is provided to the public for review.

Authorization for incidental taking shall be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s), will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses, and if the permissible methods of taking and requirements pertaining to the mitigation, monitoring and reporting of such takings are set forth. NMFS has defined "negligible

impact" in 50 CFR 216.103 as "...an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Section 101(a)(5)(D) of the MMPA established an expedited process by which citizens of the United States can apply for an authorization to incidentally take small numbers of marine mammals by harassment. Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as:

any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild ["Level A harassment"]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering ["Level B harassment"].

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

**Summary of Request**

On April 21, 2009, NMFS received an application from Rice for the taking, by Level B harassment only, of small numbers of marine mammals incidental to conducting, under a cooperative agreement with the National Science Foundation (NSF), a low-energy marine seismic survey in the Northwest Atlantic Ocean. The funding for the survey is provided by the NSF. The survey will occur off New England within the U.S Exclusive Economic Zone (EEZ). Seismic operations will occur over the continental shelf southeast of the island of Martha's Vineyard, Massachusetts, and likely also in Nantucket Sound (see Figure 1 of Rice's application). The cruise is currently scheduled to occur from August 12 to 25, 2009. The survey will use two Generator Injector (GI) airguns with a discharge volume of 90 in<sup>3</sup>. Some minor deviation from these dates is possible, depending on logistics and weather.

**Description of the Specified Activity**

Rice plans to conduct a low energy marine seismic survey and bathymetric program. The planned survey will involve one source vessel, the R/V *Endeavor* (*Endeavor*), which will occur

in the Northwest Atlantic Ocean off of New England.

The survey will examine stratigraphic controls on freshwater beneath the continental shelf off the U.S. east coast. In coastal settings worldwide, large freshwater volumes are sequestered in permeable continental shelf sediments. Freshwater storage and discharge have been documented off North and South America, Europe, and Asia. The proposed survey will investigate the Atlantic continental shelf off New England, where freshwater extends up to 100 km offshore. Using high-resolution mathematical models and existing data, it is estimated that approximately 1,300 km<sup>3</sup> (312 m1<sup>3</sup>) of freshwater is sequestered in the continental shelf from New York to Maine. However, the models indicate that the amount of sequestered freshwater is highly dependent on the thickness and distribution of aquifers and aquicludes. The survey will provide imaging of the subsurface and characterize the distribution of aquifers and aquicludes off Martha's Vineyard.

The study will provide data integral to improved models to estimate the abundance of sequestered freshwater and will provide site survey data for an Integrated Ocean Drilling Program (IODP) proposal to drill these freshwater resources for hydrogeochemical, biological, and climate studies. Combined seismic and drilling data could help identify undeveloped freshwater resources that may represent a resource to urban coastal centers, if accurately characterized and managed. On a global scale, vast quantities of freshwater have been sequestered in the continental shelf and may represent an increasingly valuable resource to humans. This survey will help constrain process-based mathematical models for more precise estimations of the abundance and distribution of freshwater wells on the continental shelf.

The source vessel, the *Endeavor*, will deploy two low-energy GI airguns as an energy source (with a discharge volume of 90 in<sup>3</sup>) and a 600 m (1,969 ft) towed hydrophone streamer. The energy to the GI airgun is compressed air supplied by compressors onboard the source vessel. As the GI airgun is towed along the survey lines, the receiving systems will receive the returning acoustic signals.

The planned seismic program will consist of approximately 1,757 km (1,092 mi) of surveys lines and turns (see Figure 1 of Rice's application). Most of the survey effort (approximately 1,638 km or 1,018 mi) will take place in water <100 m deep, and approximately 119 km (74 mi) will occur just past the

shelf edge, in water depths >100 m (328 ft). There may be additional seismic operations associated with equipment testing, start-up, and repeat coverage of any areas where initial data quality is sub-standard.

All planned geophysical data acquisition activities will be conducted with assistance by scientists who have proposed the study, Dr. B. Dugan of Rice University, Dr. D. Lizarralde of Woods Hole Oceanographic Institution, and Dr. M. Person of New Mexico Institute of Mining and Technology. The vessel will be self-contained, and the crew will live aboard the vessel for the entire cruise.

In addition to the seismic operations of the two GI airguns, a Knudsen 3260 echosounder, and EdgeTech sub-bottom profiler, and a "sparker" system to image sub-bottom seafloor layers will be used at times during the survey.

#### Vessel Specifications

The *Endeavor* has a length of 56.4 m (185 ft), a beam of 10.1 m (33.1 ft), and a maximum draft of 5.6 m (18.4 ft). The *Endeavor* has been operated by the University of Rhode Island's Graduate School of Oceanography for over thirty years to conduct oceanographic research throughout U.S. and world marine waters. The ship is powered by a single GM/EMD diesel engine, producing 3,050 hp, which drives a single propeller directly at a maximum of 900 revolutions per minute (rpm). The vessel also has a 320 hp bowthruster, which is not used during seismic acquisition. The optimal operation speed during seismic acquisition will be approximately 7.4 km/hour. When not towing seismic survey gear, the *Endeavor* can cruise at 18.5 km/hour. The *Endeavor* has a range of 14,816 km (9,206 mi). The *Endeavor* will also serve as the platform from which vessel-based Marine Mammal Visual Observers (MMVO) will watch for animals before and during GI airgun operations.

#### Acoustic Source Specifications

##### Seismic Airguns

During the proposed survey, the *Endeavor* will tow two GI airguns, with a volume of 90 in<sup>3</sup>, and a 600 m long streamer containing hydrophones along predetermined lines. The two GI airguns will be towed approximately 25 m (82 ft) behind the *Endeavor* at a depth of approximately 3 m (10 ft). Seismic pulses will be emitted at intervals of approximately 5 seconds. At a speed of 7.4 km/hour, the 5 second spacing corresponds to a shot interval of approximately 10 m (33 ft). The operating pressure will be 2,000 psi. A

single GI airgun will be used during turns.

The generator chamber of each GI airgun, the one responsible for introducing the sound pulse into the ocean, has a volume of 45 in<sup>3</sup>. The larger (105 in<sup>3</sup>) injector chamber injects air into the previously-generated bubble to maintain its shape, and does not introduce more sound into the water. Both GI airguns will be fired simultaneously, for a total discharge volume of 90 in<sup>3</sup>. The GI airguns are relatively small compared to most other airgun arrays used for seismic arrays.

A single GI airgun, a single 15 in<sup>3</sup> watergun, or a sparker system may be used in shallow waters with sandy seafloors if the two GI airguns do not provide accurate seafloor imaging. The watergun is a marine seismic sound source that uses an implosive mechanism to provide an acoustic signal. Waterguns provide a richer source spectra in high frequencies (>200 Hz) than those of GI or airguns. The 15 in<sup>3</sup> watergun potentially provides a cleaner signal for high-resolution studies in shallow water, with a short-pulse (<30 ms) providing resolution of approximately 10 m. The operating pressure will be 2,000 psi. Peak pressure of the single watergun and sparker is estimated to be approximately 212 dB (0.4 bar-m) and 208 dB re 1 μPa (rms), respectively. Thus, both sources would have a considerably lower source level than the two GI airguns and single GI airgun.

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

The sound pressure field of two 45 in<sup>3</sup> GI airguns has not been modeled, but those for two 45 in<sup>3</sup> Nucleus G airguns

and one 45 in<sup>3</sup> GI airgun have been modeled by Lamont-Doherty Earth Observatory (L-DEO) of Columbia University in relation to distance and direction from the airguns (see Figure 2 and 3 of Rice's application). The GI airgun is essentially two G airguns that are joined head to head. The G airgun signal has more energy than the GI airgun signal, but the peak energy levels are equivalent and appropriate for modeling purposes. The L-DEO model does not allow for bottom interactions, and is most directly applicable to deep water. Based on the modeling, estimates of the maximum distances from GI airguns where sound levels of 190, 180, and 160 dB re 1 μPa (rms) are predicted to be received in deep (≤1,000 m) water are shown in Table 1 of Rice's application. Because the model results are for G airguns, which have more energy than GI airguns of the same size, those distances are overestimates of the distances for the 45 in<sup>3</sup> GI airguns.

##### Echosounder

The Knudsen 3260 is a deep-water, dual-frequency echosounder with operating frequencies of 3.5 and 12 kHz. The high frequency (12 kHz) can be used to record water depth or to track pingers attached to various instruments deployed over the side. The low frequency (3.5 kHz) is used for sub-bottom profiling. Both frequencies will be used simultaneously during the present study. It will be used with a hull-mounted, downward-facing transducer. A pulse up to 24 ms in length is emitted every several seconds with a nominal beam width of 80. Maximum output power at 3.5 kHz is 10 kW and at 12 kHz it is 2 kW. The maximum source output (downward) for the 3260 is estimated to be 211 dB re 1 μPa at 10 kW.

##### Sub-bottom Profiler (SBP)

The SBP is normally operated to provide information about sedimentary features and bottom topography; it will provide a 10 cm resolution of the sub-floor. During operations in deeper waters (>30–40 m), an EdgeTech 3200-XS SBP will be operated from the ship with a SB-512i towfish that will be towed at a depth of 5 m. It will transmit and record a 0.5–12 kHz swept pulse (or chirp), with a nominal beam width of 16–32. The SBP will produce a 30 ms pulse repeated at 0.5 to 1 s intervals. Depending on seafloor conditions, it could penetrate up to 100 m.

##### Sparker

The "sparker" system will be an alternative source of sub-floor imaging in shallower waters (<30 to 40 m or 98

to 131 ft). Source level information from the manufacturer of a comparable system, the Applied Acoustics Engineering, Inc. SQUID 2000 sparker system, gives a sound pressure level of 208 dB re 1  $\mu$ Pam (rms) at 1,500 Joules. The frequency output pulse for the SIG 2mille sparker system using the SIG sparker-electrode ELC820 is between 800 and 850 Hz with pulse duration of approximately 1 ms. The trigger rate depends on the output power used; the rates go from 250 ms to 2.0 s. It is likely that the data collection for these projects will be accomplished using a 0.5 s or 1.0 s trigger rate with output power between 200 and 500 Joules. The Applied Acoustics CSP 700 sparker is a 100 to 700 Joule system. The sound pressure level for this system is 200 dB re 1  $\mu$ Pam (rms) at 500 Joules. The trigger rate depends on the output power used; the rates go from 250 ms to 1 s. It is likely that the data collection for these projects will be accomplished using a 0.5 s or 1 s trigger rate with output power between 200 and 500 Joules. This will also use the SIG sparker-electrode model ELC820 that has an output frequency between 800 and 850 Hz with a pulse duration of approximately 1 ms.

#### Safety Radii

NMFS has determined that for acoustic effects, using acoustic thresholds in combination with corresponding safety radii is the most effective way to consistently apply measures to avoid or minimize the impacts of an action, and to quantitatively estimate the effects of an action. Thresholds are used in two ways: (1) to establish a mitigation shut-down or power-down zone, i.e., if an animal enters an area calculated to be ensonified above the level of an established threshold, a sound source is powered down or shut down; and (2) to calculate take, in that a model may be

used to calculate the area around the sound source that will be ensonified to that level or above, then, based on the estimated density of animals and the distance that the sound source moves, NMFS can estimate the number of marine mammals that may be "taken."

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

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

Correction factors were developed for water depths 100–1,000 m and <100 m; the proposed survey will occur in depths approximately 20 to 125 m.

The empirical data indicate that, for deep water ( $\leq 1,000$  m), the L-DEO model tends to overestimate the received sound levels at a given distance (Tolstoy *et al.*, 2004a,b). However, to be precautionary pending acquisition of additional empirical data, it is proposed that safety radii during GI airgun operations in deep water will be values predicted by L-DEO's model (see Table 1 below). Therefore, the assumed 180 and 190 dB radii are 40 m (131 ft) and 10 m (33 ft) respectively.

Empirical measurements were not conducted for intermediate depths (100–1,000 m). On the expectation that results will be intermediate between those from shallow and deep water, a 1.5x correction factor is applied to the estimates provided by the model for deep water situations. This is the same factor that was applied to the model estimates during L-DEO cruises in 2003. The assumed 180 and 190 dB radii in intermediate depth water are 60 m (197 ft) and 15 m (49 ft), respectively (see Table 1 below).

Empirical measurements indicated that in shallow water (<100 m), the L-DEO model underestimates actual levels. In previous L-DEO projects, the exclusion zones were typically based on measured values and ranged from 1.3 to 15x higher than the modeled values depending on the size of the airgun array and the sound level measured (Tolstoy *et al.*, 2004a,b). During the proposed cruise, similar factors will be applied to derive appropriate shallow water radii from the modeled deep water radii (see Table 1 below). The assumed 180 and 190 dB radii in shallow depth water are 296 m (971 ft) and 147 m (482 ft), respectively (see Table 1 below).

TABLE 1. PREDICTED DISTANCES TO WHICH SOUND LEVELS  $\geq 190$ , 180, AND 160 DB RE 1  $\mu$ PA MIGHT BE RECEIVED IN SHALLOW (<100 M; 328 FT), INTERMEDIATE (100–1,000 M; 328–3,280 FT), AND DEEP (>1,000 M; 3,280 FT) WATER FROM THE SINGLE 45 IN<sup>3</sup> GI AIRGUN USED DURING THE SEISMIC SURVEYS IN THE NORTHEASTERN PACIFIC OCEAN DURING JULY 2009. DISTANCES ARE BASED ON MODEL RESULTS PROVIDED BY L-DEO.

Source and Volume	Tow Depth (m)	Water Depth	Predicted RMS Distances (m)		
			190 dB	180 dB	160 dB
One GI airgun 45 in <sup>3</sup>	3	Deep (>1,000 m)	8	23	220
		Intermediate (100–1,000 m)	12	35	330
		Shallow (< 100 m)	95	150	570
Two GI airgun 45 in <sup>3</sup>	3	Deep (>1,000 m)	10	40	350

TABLE 1. PREDICTED DISTANCES TO WHICH SOUND LEVELS  $\geq 190$ , 180, AND 160 DB RE 1  $\mu$ PA MIGHT BE RECEIVED IN SHALLOW (<100 M; 328 FT), INTERMEDIATE (100–1,000 M; 328–3,280 FT), AND DEEP (>1,000 M; 3,280 FT) WATER FROM THE SINGLE 45 IN<sup>3</sup> GI AIRGUN USED DURING THE SEISMIC SURVEYS IN THE NORTHEASTERN PACIFIC OCEAN DURING JULY 2009. DISTANCES ARE BASED ON MODEL RESULTS PROVIDED BY L-DEO.—Continued

Source and Volume	Tow Depth (m)	Water Depth	Predicted RMS Distances (m)		
			190 dB	180 dB	160 dB
		Intermediate (100–1,000 m)	15	60	525
		Shallow (< 100 m)	147	296	1,029

Table 1. Predicted distances to which sound levels  $\geq 190$ , 180, and 160 dB re 1  $\mu$ Pa might be received in shallow (<100 m; 328 ft), intermediate (100–1,000 m; 328–3,280 ft), and deep (>1,000 m; 3,280 ft) water from the two 45 in<sup>3</sup> GI airguns used during the seismic surveys in the northwest Atlantic Ocean during August 2009, and one 45 in<sup>3</sup> GI airgun that will be used during turns. Distances are based on model results provided by L-DEO.

The GI airguns, watergun, or sparker will be shut-down immediately when cetaceans are detected within or about to enter the 180 dB re 1  $\mu$ Pa (rms) radius for the two GI airguns, or when pinnipeds are detected within or about to enter the 190 dB re 1  $\mu$ Pa (rms) radius for the two GI airguns. The 180 and 190 dB shut down criteria are consistent with guidelines listed for cetaceans and pinnipeds, respectively, by NMFS (2000) and other guidance by NMFS.

#### Dates, Duration, and Region of Activity

The *Endeavor* is expected to depart from Narragansett, Rhode Island on approximately August 12, 2009, for an approximately four-hour transit to the study area southeast of Martha's Vineyard (see Figure 1 of Rice's application). Seismic operations will commence upon arrival at the study area, with highest priority given to the central NNW-SSE line, followed by WSW-ENE lines, each of which cross the proposed IODP sites; lowest priority will be given to the survey lines in Nantucket Sound. The 14-day program will consist of approximately 11 days of seismic operations, and three contingency days in case of inclement weather. The *Endeavor* will return to Narragansett on approximately August 25, 2009. The exact dates of the proposed activities depend on logistics, weather conditions, and the need to repeat some lines if data quality is substandard.

The proposed seismic survey will encompass the area 39.8° to 41.5° N, 69.8° to 70.6° W (see Figure 1 of Rice's application). Water depths in the study area range from approximately 20 to 125 m (66 to 410 ft), but are typically <100 m. The proposed survey will take place in Nantucket Sound and south of Nantucket and Martha's Vineyard. The ship will approach the south shore of Martha's Vineyard within 10 km (6.2 mi). The seismic survey will be

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

#### Comments and Responses

A notice of receipt of the Rice application and proposed IHA was published in the **Federal Register** on June 18, 2009 (74 FR 28890). During the comment period, NMFS received comments from the Marine Mammal Commission (Commission). Following are comments from the Commission, and NMFS' responses.

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

*Response:* NMFS concurs with the Commission's recommendation and has included requirements to these effects in the IHA issued to Rice.

*Comment 2:* The Commission recommends that NMFS issue the requested authorization, provided that NMFS (1) clarify when the use of night vision devices (NVD) will be required and provide additional justification for its implied conclusion that observers will be able to achieve a high nighttime detection rate, and (2) require the use of passive acoustic monitoring (PAM) during all operations.

*Response:* (1) Though it depends on the lights on the ship, the sea state, and thermal factors, MMVOs estimated that visual detection is effective out to between 150 and 250 m using NVDs and about 30 m with the naked eye (dolphins, porpoises, pinnipeds, and large whales are the species likely to be detected in the shallow and intermediate water depths, where the safety zones are the largest). Marine seismic surveys may continue into night and low-light hours if such segment(s) of the survey are initiated when the entire relevant safety zones are visible

and can be effectively monitored. No initiation of airgun array operations is permitted from a shut-down position at night or during low-light hours (such as in dense fog or heavy rain) when the entire relevant safety zone cannot be effectively monitored by the MMVOs on duty. NMFS has included a requirement to this effect in the IHA issued to Rice; and

(2) PAM remains as optional, but willingly used as supplemental effort specific to the R/V *Marcus G. Langseth*. The use of PAM in any situation as a "required" mitigation measure is addressed as premature in NSF's draft Programmatic Environmental Impact Statement. NMFS recommends that applicants seeking an Incidental Take Authorization use PAM for monitoring and mitigation purposes whenever possible.

*Comment 3:* The Commission recommends that NMFS issue the requested authorization, provided that the authorization require that the monitoring period be extended to at least one hour before seismic activities are initiated or to at least one hour before airgun activities are resumed after a power-down because of a marine mammal sighting within the safety zone.

*Response:* As the Commission points out, several species of cetaceans that occur in the study area are capable of remaining underwater for more than 30 minutes. However, for the following reasons, NMFS believes that 30 minutes is an adequate length for the monitoring period prior to the start-up of airguns: (1) because the *Endeavor* is required to ramp-up; (2) in many cases MMOs are making observations during times when the sound sources are not being operated and will actually be observing the area prior to the start-up observation period anyway; (3) many of the species that may be exposed do not stay underwater more than 30 min; and (4) all else being equal and if a deep-diving individual happened to be in the area in

the short time immediately prior to the pre-start-up monitoring, if an animal's maximum underwater time is 45 min, there is only a one in three chance that its last random surfacing would be prior to the beginning of the required monitoring period.

Also, seismic vessels are moving continuously (because of the towed array and airguns) and NMFS believes that unless the animals submerge and follows at the speed of the vessel (highly unlikely, especially when considering that a significant part of their movements is vertical [deep-diving]), the vessel will be far beyond the length of the safety radii within 30 min, and therefore it will be safe to start the airguns again.

*Comment 4:* The Commission recommends that NMFS issue the requested authorization, provided that the applicant carry out observations of all instances where ramp-up is employed to gather data on its effectiveness as a mitigation measure.

*Response:* The IHA requires that MMVOs on the *Endeavor* make observations prior to ramp-up, during all ramp-ups, and during all daytime seismic operations and record the

following information when a marine mammals is sighted:

(i) Species, group size, age/size/sex categories (if determinable), behavior when first sighted and after initial sighting, heading (if consistent), bearing and distance from seismic vessel, sighting, cue, apparent reactions to the airguns or vessel (e.g., none, avoidance, approach, paralleling, etc., and including responses to ramp-up), and behavioral pace; and

(ii) Time, location, heading, speed, activity of the vessel (including number of airguns operations and whether in state of ramp-up or power-down), sea state, visibility, cloud cover, and sun glare.

These requirements should provide information regarding the effectiveness of ramp-up as a mitigation measure, provided animals are detecting during ramp-up. NMFS has included a requirement to this effect in the IHA issued to Rice.

*Comment 5:* The Commission recommends that NMFS issue the requested authorization, provided that the authorization require that operations be suspended immediately, pending review by NMFS, if a dead or seriously injured marine mammal is found in the vicinity of the operations and the death

or injury could have occurred incidental to the seismic survey.

*Response:* NMFS has included a requirement to this effect in the IHA issued to Rice.

#### **Description of Marine Mammals in the Proposed Activity Area**

A total of 34 marine mammal species (30 cetacean and 4 pinniped) are known to or may occur in the proposed study area (see Table 2, Waring *et al.*, 2007). Several species are listed as Endangered under the Endangered Species Act (ESA): the North Atlantic right, humpback, sei, fin, blue, and sperm whales. The Western North Atlantic Coastal Morphotype Stock of common bottlenose dolphins is listed as Depleted under the MMPA.

Table 2 below outlines the marine mammal species, their habitat, abundance, density, and conservation status in the proposed project area. Additional information regarding the distribution of these species expected to be found in the project area and how the estimated densities were calculated may be found in the notice of the proposed IHA (74 FR 28890, June 18, 2009) and may be found in Rice's application.

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Table 2. The occurrence, habitat, regional abundance, conservation status, best and maximum density estimates, number of marine mammals that could be exposed to sound level at or above 160dB re 1 $\mu$ Pa, best estimate of number of individuals exposed, and best estimate of number of exposures per marine mammal in or near the proposed low-energy seismic survey area in the Northwest Atlantic Ocean. See Tables 2-4 in Rice's application for further detail.

Species	Habitat	Regional Best Abundance Est. (CV) <sup>1</sup>	Density/1000km <sup>2</sup> (best)	Density/1000km <sup>2</sup> (max)	Number of Individ. Exposed to $\geq$ 160 dB	Percent of Estimated Population Exposed to $\geq$ 160 dB
<b>Mysticetes</b> North Atlantic right whale ( <i>Eubalaena glacialis</i> )	Coastal and shelf waters	325 (0) <sup>2</sup>	N.A.	N.A.	0	0
Humpback whale ( <i>Megaptera novaeangliae</i> )	Mainly nearshore waters and banks	11,570 <sup>3</sup>	0.56	19.68	2	0.02
Minke whale ( <i>Balaenoptera acutorostrata</i> )	Pelagic and coastal	188,000 <sup>4</sup>	0.05	7.35	0	0
Bryde's whale ( <i>Balaenoptera brydei</i> )	Primarily offshore, pelagic	N.A.	N.A.	N.A.	0	0
Sei whale ( <i>Balaenoptera borealis</i> )	Primarily offshore, pelagic	10,300 <sup>5</sup>	N.A.	N.A.	0	0
Fin whale ( <i>Balaenoptera physalus</i> )	Continental slope, mostly pelagic	35,500 <sup>6</sup>	3.86	26.09	11	0.03
Blue whale ( <i>Balaenoptera musculus</i> )	Pelagic, shelf and coastal	1,186 <sup>7</sup>	N.A.	N.A.	0	0
<b>Odontocetes</b> Sperm whale ( <i>Physeter macrocephalus</i> )	Usually pelagic and deep seas	13,190 <sup>8</sup>	0.38	26.88	2	0.02
Pygmy sperm whale ( <i>Kogia breviceps</i> )	Deep waters off shelf	N.A.	N.A.	N.A.	0	0
Dwarf sperm whale ( <i>Kogia sima</i> )	Deep waters off the shelf	N.A.	N.A.	N.A.	0	0
Cuvier's beaked whale ( <i>Ziphius cavirostris</i> )	Pelagic	N.A.	N.A.	N.A.	0	0
Northern bottlenose whale ( <i>Hyperodon ampullatus</i> )	Pelagic	40,000 <sup>9</sup>	N.A.	N.A.	0	0
True's beaked whale ( <i>Mesoplodon mirus</i> )	Pelagic	N.A.	N.A.	N.A.	0	0

Gervais' beaked whale ( <i>Mesoplodon europaeus</i> )	Pelagic	N.A.	N.A.	N.A.	0	0
Sowerby's beaked whale ( <i>Mesoplodon bidens</i> )	Pelagic	N.A.	N.A.	N.A.	0	0
Blainville's beaked whale ( <i>Mesoplodon densirostris</i> )	Pelagic	N.A.	N.A.	N.A.	0	0
Unidentified beaked whale	Pelagic	N.A.	0.01	0.82	0	0
Bottlenose dolphin ( <i>Tursiops truncatus</i> )	Coastal, shelf and offshore	81,588 (0.17) <sup>10</sup>	14.02	163.02	39	0.05
Pantropical spotted dolphin ( <i>Stenella attenuata</i> )	Coastal and pelagic	N.A.	N.A.	N.A.	0	0
Atlantic spotted dolphin ( <i>Stenella frontalis</i> )	Mainly coastal waters	50,978 (0.42)	N.A.	N.A.	0	0
Spinner dolphins ( <i>Stenella longirostris</i> )	Coastal and pelagic	N.A.	N.A.	N.A.	0	0
Striped dolphin ( <i>Stenella coeruleoalba</i> )	Off continental shelf	94,462 (0.40)	0.11	73.61	0	0
Short-beaked common dolphin ( <i>Delphinus delphis</i> )	Continental shelf and pelagic	120,743 (0.23)	128.88	1,108.71	349	0.17
White-beaked dolphin ( <i>Lagenorhynchus albirostris</i> )	Continental shelf (<200 m)	10s to 100s of 1,000s <sup>11</sup>	N.A.	N.A.	0	0
Atlantic white-sided dolphin ( <i>Lagenorhynchus acutus</i> )	Shelf and slope waters	10s to 100s of 1,000s <sup>12</sup>	N.A.	N.A.	0	0
Risso's dolphin ( <i>Grampus griseus</i> )	Shelf, slope, seamounts (waters 400- 1,000 m)	20,479 (0.59)	0.48	322.67	2	0.01
False killer whale ( <i>Pseudorca crassidens</i> )	Tropical, temperate, pelagic	N.A.	N.A.	N.A.	0	0
Killer whale ( <i>Orcinus orca</i> )	Coastal, widely distributed	N.A.	N.A.	N.A.	0	0
Long-finned pilot whale ( <i>Globicephala melas</i> )	Mostly pelagic	810,000 <sup>13</sup>	N.A.	N.A.	N.A.	N.A.
Short-finned pilot whale ( <i>Globicephala macrorhynchus</i> )	Mostly pelagic, high-relief topography	810,000 <sup>13</sup>	N.A.	N.A.	N.A.	N.A.



Unidentified pilot whale ( <i>Globicephala</i> sp.)	Mostly pelagic	810,000 <sup>13</sup>	6.44	382.52	10	<0.01
Harbor porpoise ( <i>Phocoena phocoena</i> )	Coastal and inland waters	500,000 <sup>14</sup>	N.A.	N.A.	0	0
<b>Pinnipeds</b> Harbor seal ( <i>Phoca vitulina</i> )	Coastal	99,340	N.A.	N.A.	10	0.01
Gray seal ( <i>Halichoerus grypus</i> )	Coastal	52,500 <sup>15</sup>	N.A.	N.A.	5	<0.01
Harp seal ( <i>Pagophilus groenlandicus</i> )	Coastal	5,500,000 <sup>16</sup>	N.A.	N.A.	0	N.A.
Hooded seal ( <i>Cystophora cristata</i> )	Coastal	592,100 <sup>17</sup>	N.A.	N.A.	0	N.A.

N.A. – Data not available or species status was not assessed, ? indicated uncertainty

<sup>a</sup> U.S. Endangered Species Act: EN = Endangered, T = Threatened, NL = Not listed

<sup>1</sup> Abundance estimates are given from Waring *et al.* (2007), typically for U.S. Western North Atlantic stocks unless otherwise indicated; For species whose distribution is primarily offshore or not known, the estimates for the U.S. EEZ in Waring *et al.* (2007) are not considered for the study area and the regional population is given as N.A. unless it is available from another source.

<sup>2</sup> Estimate updated in NMFS 2008 draft stock assessment report.

<sup>3</sup> Estimate for the western North Atlantic (IWS, 2007a).

<sup>4</sup> Estimate for the North Atlantic (IWC, 2007; Waring *et al.*, 2007).

<sup>5</sup> Estimate for the Northeast Atlantic (Cattanach *et al.*, 1993).

<sup>6</sup> Estimate for the North Atlantic (IWC, 2007a; Waring *et al.*, 2007).

<sup>7</sup> Estimate for the North Atlantic (NMFS, 1998).

<sup>8</sup> Estimate for Northeast Atlantic (Whitehead, 2002).

<sup>9</sup> Estimate for Northeast Atlantic (NAAMCO, 1995: 77).

<sup>10</sup> Estimate for the Western North Atlantic and Offshore stock, and may include coastal forms. 43,951 animals estimated for all management units of the Coastal morphotype (Waring *et al.*, 2007).

<sup>11</sup> Tens to low hundreds of thousands (Reeves *et al.*, 1999a).

<sup>12</sup> High tens to low hundreds of thousands (Reeves *et al.*, 1999b).

<sup>13</sup> Estimate may include both long- and short-finned pilot whales.

<sup>14</sup> Estimate for the North Atlantic (Jefferson *et al.*, 2008)

<sup>15</sup> Estimate for the northwest Atlantic Ocean in the Gulf of St. Lawrence and along the Nova Scotia eastern shore (Hammill, 2005).

<sup>16</sup> Estimate for the northwest Atlantic Ocean (DFO, 2007).

<sup>17</sup> Estimate for the northwest Atlantic Ocean (ICES, 2006).

\* Southern Resident killer whales in the eastern Pacific Ocean, near Washington state, are listed as endangered under the ESA, but not in the Atlantic Ocean.

^ The Western North Atlantic Coastal Morphotype stock, ranging from NJ to FL, is listed as depleted under the MMPA.

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Several Federal Marine Protected Areas (MPAs) or sanctuaries have been established near the proposed study area, primarily with the intention of preserving cetacean habitat (see Table 3 of Rice's application; Hoyt, 2005; Cetacean Habitat, 2009; see also Figure 1 of Rice's application). Cape Cod Bay is designated as Right Whale Critical Habitat, as is the Great South Channel Northern Right Whale Critical Habitat Area located to the east of Cape Cod. The Gerry E. Studds Stellwagen Bank

National Marine Sanctuary is located north of the proposed study area in the Gulf of Maine. The proposed survey is not located within any Federal MPAs or sanctuaries. However, a sanctuary designated by the state of Massachusetts occurs within the study area - the Cape and Islands Ocean Sanctuary. This sanctuary includes nearshore waters of southern Cape Cod, Martha's Vineyard, and Nantucket (see Table 3 of Rice's application). In addition, there are four National Wildlife Refuges within the study area (Monomoy, Nantucket,

Mashpee, and Nomans Island) and a National Estuarine Research Reserve (Waquoit Bay). Except for Nomans Island, these refuges and reserves are located in Nantucket Sound. Three Canadian protected areas also occur in the Northwest Atlantic for cetacean habitat protection, including the Bay of Fundy and Roseway Basin Right Whale Conservation Areas (see Figure 1 of Rice's application), as well as the Gully Marine Protected Area off the Scotian Shelf.

There are several areas that are closed to commercial fishing on a seasonal basis to reduce the risk of entanglement or incidental mortality to marine mammals. To protect large whales like right, humpback, and fin whales, NMFS implemented seasonal area management zones for lobster, several groundfish, and other marine invertebrate trap/pot fisheries, prohibiting gear in the Great South Channel Critical Habitat Area from April through June; additional dynamic area management zones could be imposed for 15 day time periods if credible fisheries observers identify concentrations of right whales in areas north of 40 N (NMFS 1999, 2008). To reduce fishery impacts on harbor porpoises, additional time and area closures in the Gulf of Maine include fall and winter along the mid-coastal area, winter and spring in Massachusetts Bay and southern Cape Cod, winter and spring in offshore areas, and February around Cashes Ledge (NMFS, 1998). Fishermen are also required to use pingers, and New Jersey and mid-Atlantic waters could close seasonally for fishermen failing to apply specific gear modifications (NMFS, 1998).

### Potential Effects on Marine Mammals

#### *Potential Effects of Airguns*

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

The notice of the proposed IHA (74 FR 28890, June 18, 2009) included a discussion of the effects of sounds from airguns on mysticetes, odontocetes, and pinnipeds, including tolerance, masking, behavioral disturbance, hearing impairment, and other non-auditory physical effects. Additional information on the behavioral reactions (or lack thereof) by all types of marine mammals to seismic vessels can be

found in Rice's application and associated EA.

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

#### Estimated Take by Incidental Harassment

The notice of the proposed IHA (74 FR 28890, June 18, 2009) included an in-depth discussion of the methods used to calculate the densities of the marine mammals in the area of the seismic survey and the take estimates. Additional information was included in Rice's application. A summary is included here.

All anticipated takes would be "takes by harassment," involving temporary changes in behavior. The monitoring and mitigation measures are expected to minimize the possibility of injurious takes. (However, as noted earlier and in Appendix A of Rice's application, there is no specific information demonstrating that injurious "takes" would occur even in the absence of the planned monitoring and mitigation measures.) The sections below describe methods to estimate "take by harassment", and present estimates of the numbers of marine mammals that might be affected during the proposed seismic program in the Northwest Atlantic Ocean. The estimates of "take by harassment" are based on (1) cetacean densities (numbers per unit area) obtained during aerial surveys off New England during 2002 and 2004 by NMFS Northeast Fisheries Science Center (NEFSC), and (2) estimates of the size of the area where effects could potentially occur. Few, if any, pinnipeds are expected to be encountered during the proposed survey in the summer.

The following estimates are based on a consideration of the number of marine mammals that might be disturbed appreciably by operations with the GI airgun to be used during approximately 1,757 line km (1,092 mi) of surveys (including turns) off the New England coast. The anticipated radii of influence of the other sound sources (i.e., SBP, sparker system, and echosounder) are less than those for the GI airguns. It is assumed that, during simultaneous

operations of the GI airguns and other sound sources, any marine mammals close enough to be affected by the other sound sources would already be affected by the GI airguns. However, whether or not the GI airguns are operating simultaneously with the other sound sources, marine mammals are expected to exhibit no more than short-term and inconsequential responses to the other sound sources given their characteristics (e.g., narrow downward-directed beam in the echosounder). Therefore, no additional allowance is included for animals that could be affected by the other sound sources.

Extensive systematic aircraft and ship-based surveys have been conducted for marine mammals offshore from New England (e.g., see Palka, 2006). Those that were conducted in the proposed seismic survey area were used for density estimates. Oceanographic conditions influence the distribution and numbers of marine mammals present in the study area, resulting in year-to-year variation in the distribution and abundance of many marine mammal species. Thus, for some species the densities derived from these surveys may not be representative of the densities that will be encountered during the proposed seismic survey. To provide some allowance for these uncertainties, "maximum estimates" as well as "best estimates" of the numbers potentially affected have been derived. Best and maximum estimates are based on the average and maximum estimates of densities calculated from the appropriate densities reported by Palka (2006).

Table 4 of Rice's application gives the average and maximum densities for each species of cetacean reported in the proposed survey area off New England, corrected for effort, based on the densities as described above. The densities from those studies had been corrected, by the original authors, for both detectability bias and availability bias. Detectability bias associated with diminishing sightability with increasing lateral distance from the tracklines [f(0)]. Availability bias refers to the fact that there is less-than-100-percent probability of sighting an animal that is present along the survey trackline, and it is measured by g(0).

It should be noted that the following estimates of "takes by harassment" assume that the surveys will be undertaken and completed. As is typical on offshore ship surveys, inclement weather, and equipment malfunctions are likely to cause delays and may limit the number of useful line kms of seismic operations that can be undertaken. Furthermore, any marine mammal

sightings within or near the designated safety zones will result in the shut-down of seismic operations as a mitigation measure. Thus, the following estimates of the numbers of marine mammals potentially exposed to 160 dB sounds are precautionary, and probably overestimate the actual numbers of marine mammals that might be involved. These estimates assume that there will be no weather, equipment, or mitigation delays, which is highly likely.

There is some uncertainty about the representativeness of the data and the assumptions used in the calculations. However, the approach used is believed to be the best available approach. Also, to provide some allowance for these uncertainties "maximum estimates" as well as "best estimates" of the numbers potentially affected have been derived. The estimated number of potential individuals exposed are presented below based on the 160 dB re 1 µPa (rms) criterion for all cetaceans and pinnipeds. It is assumed that a marine mammal exposed to airgun at that received level might change their behavior sufficiently to be considered "taken by harassment."

The number of different individuals that may be exposed to GI airgun sounds with received levels ≥160 dB re 1 µPa (rms) on one or more occasions was estimated by considering the total

marine area that would be within the 160-dB radius around the operating airgun array on at least one occasion. The seismic lines do not run parallel to each other in close proximity, which minimizes the number of times an individual mammal may be exposed during the survey. Table 5 of Rice's application shows the best and maximum estimates of the number of marine mammals that could potentially be affected during the seismic survey.

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

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

The area expected to be ensonified was determined by entering the planned survey lines into a MapInfo Geographic Information System (GIS), using the GIS to identify the relevant areas by "drawing" the applicable 160 dB buffer around each seismic line (two GI airgun buffer) and turns (one GI airgun buffer) (depending on water and tow depth) and then calculating the total area within the buffers. Areas where overlap occurred (because of intersecting lines) were included only once to determine the area expected to be ensonified.

Applying the approach described above, approximately 2,877 km<sup>2</sup> (1,111 mi<sup>2</sup>) would be within the 160 dB isopleth on one or more occasions during the survey. This approach does not allow for "turnover" in the mammal populations in the study area during the course of the studies. That might underestimate actual numbers of individuals exposed, although the conservative distances used to calculate the area may offset this. In addition, the approach assumes that no cetaceans will move away or toward the trackline as the *Endeavor* approaches in response to increasing sound levels prior to the time the levels reach 160 dB. Another way of interpreting the estimates that follow is that they represent the number of individuals that are expected (in the absence of a seismic survey) to occur in the waters that will be exposed to ≥160 dB re 1 µPa (rms).

Table 3 (see below) outlines the species, estimated stock population (minimum and best), and estimated percentage of the stock exposed to seismic pulses in the project area. Additional information regarding status, abundance, and distribution of the marine mammals in the area and how densities were calculated was included in Table 2 (see above), the notice of the proposed IHA (74 FR 28890) and may be found in Rice's application.

TABLE 3. THE ESTIMATES OF THE POSSIBLE NUMBERS OF MARINE MAMMALS EXPOSED TO SOUND LEVELS GREATER THAN OR EQUAL TO 160 DB DURING RICE'S PROPOSED SEISMIC SURVEY OFF THE COAST OF NEW ENGLAND IN AUGUST 2009. THE PROPOSED SOUND SOURCE IS A SINGLE GI AIRGUN. RECEIVED LEVELS ARE EXPRESSED IN DB RE 1 µPA (RMS) (AVERAGED OVER PULSE DURATION), CONSISTENT WITH NMFS' PRACTICE. NOT ALL MARINE MAMMALS WILL CHANGE THEIR BEHAVIOR WHEN EXPOSED TO THESE SOUND LEVELS, BUT SOME MAY ALTER THEIR BEHAVIOR WHEN LEVELS ARE LOWER (SEE TEXT). SEE TABLES 3-5 IN RICE'S APPLICATION FOR FURTHER DETAIL.

Species	# of Individuals Exposed (best) <sup>1</sup>	# of Individuals Exposed (max) <sup>1</sup>	Approx. % Regional Population (best) <sup>2</sup>
<b>Mysticetes</b>			
Nort Atlantic right whale <sup>3</sup> ( <i>Eubalena glacialis</i> )	0	0	0
Humpback whale ( <i>Megaptera novaeangliae</i> )	2	57	0.02
Minke whale( <i>Balaenoptera acutorostrata</i> )	0	21	<0.01
Bryde's whale ( <i>Balenoptera brydei</i> )	0	0	0
Sei whale( <i>Balaenoptera borealis</i> )	0	0	0
Fin whale ( <i>Balaenoptera physalus</i> )	11	75	0.02
Blue whale ( <i>Balaenoptera musculus</i> )	0	0	0

**Odontocetes**

TABLE 3. THE ESTIMATES OF THE POSSIBLE NUMBERS OF MARINE MAMMALS EXPOSED TO SOUND LEVELS GREATER THAN OR EQUAL TO 160 DB DURING RICE'S PROPOSED SEISMIC SURVEY OFF THE COAST OF NEW ENGLAND IN AUGUST 2009. THE PROPOSED SOUND SOURCE IS A SINGLE GI AIRGUN. RECEIVED LEVELS ARE EXPRESSED IN DB RE 1  $\mu$ PA (RMS) (AVERAGED OVER PULSE DURATION), CONSISTENT WITH NMFS' PRACTICE. NOT ALL MARINE MAMMALS WILL CHANGE THEIR BEHAVIOR WHEN EXPOSED TO THESE SOUND LEVELS, BUT SOME MAY ALTER THEIR BEHAVIOR WHEN LEVELS ARE LOWER (SEE TEXT). SEE TABLES 3–5 IN RICE'S APPLICATION FOR FURTHER DETAIL.—Continued

Species	# of Individuals Exposed (best) <sup>1</sup>	# of Individuals Exposed (max) <sup>1</sup>	Approx. % Regional Population (best) <sup>2</sup>
Sperm whale ( <i>Physeter macrocephalus</i> )	2	77	0.02
Pygmy sperm whale ( <i>Kogia breviceps</i> )	0	0	0
Dwarf sperm whale ( <i>Kogia sima</i> )	0	0	0
Cuvier's beaked whale ( <i>Ziphius cavirostris</i> )	0	0	0
Northern bottlenose whale ( <i>Hyperodon ampullatus</i> )	0	1	0
True's beaked whale ( <i>Mesoplodon mirus</i> )	0	0	0
Gervais' beaked whale ( <i>Mesoplodon europaeus</i> )	0	0	0
Sowerby's beaked whale ( <i>Mesoplodon bidens</i> )	0	1	0
Blainville's beaked whale ( <i>Mesoplodon densirostris</i> )	0	0	0
Unidentified beaked whale	0	2	N.A.
Bottlenose dolphin <sup>3</sup> ( <i>Tursiops truncatus</i> )	39	4,700	0.05
Pantropical spotted dolphin ( <i>Stenella attenuata</i> )	0	0	0
Atlantic spotted dolphin ( <i>Stenella frontalis</i> )	0	0	0
Spinner dolphins ( <i>Stenella longirostris</i> )	0	0	0
Striped dolphin ( <i>Stenella coeruleoalba</i> )	0	212	<0.01
Common dolphin ( <i>Delphinu</i> ) sp.	349	3,189	<0.17
White-beaked dolphin ( <i>Lagenorhynchus albirostris</i> )	0	0	0
Atlantic white-sided dolphin <sup>5</sup> <i>Lagenorhynchus acutus</i> )	0	0	0
Risso's dolphin ( <i>Grampus griseus</i> )	2	929	0.01
False killer whale ( <i>Pseudorca crassidens</i> )	0	0	0
Killer whale ( <i>Orcinus orca</i> )	0	0	0
Long-finned pilot whale ( <i>Globicephala melas</i> )	N.A.	N.A.	<0.01

TABLE 3. THE ESTIMATES OF THE POSSIBLE NUMBERS OF MARINE MAMMALS EXPOSED TO SOUND LEVELS GREATER THAN OR EQUAL TO 160 DB DURING RICE'S PROPOSED SEISMIC SURVEY OFF THE COAST OF NEW ENGLAND IN AUGUST 2009. THE PROPOSED SOUND SOURCE IS A SINGLE GI AIRGUN. RECEIVED LEVELS ARE EXPRESSED IN DB RE 1  $\mu$ PA (RMS) (AVERAGED OVER PULSE DURATION), CONSISTENT WITH NMFS' PRACTICE. NOT ALL MARINE MAMMALS WILL CHANGE THEIR BEHAVIOR WHEN EXPOSED TO THESE SOUND LEVELS, BUT SOME MAY ALTER THEIR BEHAVIOR WHEN LEVELS ARE LOWER (SEE TEXT). SEE TABLES 3–5 IN RICE'S APPLICATION FOR FURTHER DETAIL.—Continued

Species	# of Individuals Exposed (best) <sup>1</sup>	# of Individuals Exposed (max) <sup>1</sup>	Approx. % Regional Population (best) <sup>2</sup>
Short-finned pilot whale ( <i>Globicephala macrorhynchus</i> )	N.A.	N.A.	<0.01
Unidentified pilot whale ( <i>Globicephala</i> sp.)	10	1,101	<0.01
Harbor porpoise ( <i>Phocoena phocoena</i> )	0	0	0
<b>Pinnipeds</b>			
Harbor seal <sup>4</sup> ( <i>Phoca vitulina</i> )	10	N.A.	0.01
Gray seal ( <i>Halichoerus grypus</i> )	5	N.A.	<0.01
Harp seal <sup>4</sup> ( <i>Pagophilus groenlandicus</i> )	0	0	0
Hooded seal ( <i>Cystophora cristata</i> )	0	0	0

N.A. - Data not available or species status was not assessed

<sup>1</sup> Best estimate and maximum estimates of exposure are from Table 5 of Rice's application.

<sup>2</sup> Regional population size estimates are from Table 2 (above) and Table 2 of Rice's application.

<sup>3</sup> Species not sighted in the surveys used for density estimates, but that could occur in low densities in the proposed survey area.

<sup>4</sup> Species for which summer densities in the study area are unavailable, but could occur there in low numbers.

<sup>5</sup> Not identified to species level.

Table 5 of Rice's application shows the best and maximum estimates of the number of exposures and the number of individual marine mammals that potentially could be exposed to greater than or equal to 160 dB re 1  $\mu$ Pa (rms) during the different legs of the seismic survey if no animals moved away from the survey vessel.

The "best estimate" of the number of individual marine mammals that could be exposed to seismic sounds with received levels greater than or equal to 160 dB re 1  $\mu$ Pa (rms) (but below Level A harassment thresholds) during the survey is shown in Table 5 of Rice's application and Table 3 (shown above). That includes 0 North Atlantic right (0 percent of the regional population), 2 humpback (0.02 percent of the regional population), 11 fin (0.03 percent of the regional population), and 2 sperm whales (0.02 percent of the regional population), and no beaked whales. Based on the best estimates, most (93 percent) of the marine mammals potentially exposed are dolphins. The common dolphin and bottlenose dolphin are estimated to be the most common species exposed to 160 dB re

$\mu$ Pa (rms); the best take estimates for those species are 349 (0.17 percent of the regional population) and 39 (0.05 percent of the regional population), respectively. Estimates for the other dolphin species that could be exposed are lower (see Table 5 of Rice's application). The authorized takes for unidentified pilot whales and Risso's dolphins was increased to 50 (<0.01 percent of the regional population) and 30 (0.15 percent of the regional population), respectively, to account for the average group size these species in which they are often encountered. In addition, it is estimated that 10 harbor seals (0.01 percent) and 5 gray seals (<0.01 percent) may be exposed to sound levels greater than or 160 dB re 1  $\mu$ Pa (rms).

The "maximum estimate" column of Table 5 of Rice's application shows an estimated total of 9,479 cetaceans exposed to seismic sounds  $\mu$ 160 dB during the surveys. Those estimates are based on the highest calculated density in any survey stratum; in this case, the stratum with the highest density invariably was one of the areas where very little of the proposed seismic

survey will take place, i.e., Georges Central or Shelf Central. In other words, densities observed in the 2002 and 2004 aerial surveys were lowest in the Georges West operation area, where most of the proposed seismic surveys will take place. Therefore, the numbers for which "take authorization" is requested, given in the far right column of Table 5 of Rice's application, are the best estimates. For three endangered species, the best estimates were set at the species' mean group size. The North Atlantic right whale, which was not sighted during the aerial surveys, could occur in the survey area, and is usually seen individually (feeding aggregations are not expected to occur in the study area). The humpback and sperm whales, each of whose calculated best estimate was one, have a mean group size of two.

#### Potential Effects on Marine Mammal Habitat

A detailed discussion of the potential effects of this action on marine mammal habitat, including physiological and behavioral effects on marine fish and invertebrates was included in the proposed IHA (74 FR 28890, June 18, 2009). Based on the discussion in the

proposed IHA notice and the nature of the activities (limited duration), the authorized operations are not expected to have any habitat-related effects that could cause significant or long-term consequences for individual marine mammals or their populations or stocks. Similarly, any effects to food resources are expected to be negligible.

The Rice seismic survey will not result in any permanent impact on habitats used by marine mammals, or to the food sources they use. The main impact issue associated with the proposed activity will be temporarily elevated noise levels and the associated direct effects on marine mammals, as described above. The following sections briefly review effects of airguns on fish and invertebrates, and more details are included in Rice's application and associated EA.

#### Subsistence Activities

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

#### Mitigation and Monitoring

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

Mitigation measures proposed for the survey include:

- (1) Speed or course alteration, provided that doing so will not compromise operational safety requirements;
- (2) GI airgun shut-down procedures;
- (3) GI airgun power-downs procedures (including turns);
- (4) GI airgun ramp-up procedures;
- (5) Procedures for species of particular concern, e.g., emergency shut-down procedures if a North Atlantic right whale is sighted at any distance, and concentrations of humpback, fin, sperm, blue, and/or sei whales will be avoided.

The thresholds for estimating take are also used in connection with proposed mitigation. The radii in Table 2 (above) will be used as shut-down criteria for the other sound sources (single GI airgun, watergun, and sparker), all of

which have lower source levels than the two GI airguns.

#### Vessel-based Visual Monitoring

Marine Mammal Visual Observers (MMVOs) will be based aboard the seismic source vessel and will watch for marine mammals near the vessel during daytime GI airgun operations and during start-ups of airguns at night. MMVOs will also watch for marine mammals near the seismic vessel for at least 30 minutes prior to the start of airgun operations and after an extended shut-down of the airguns. When feasible MMVOs will also make observations during daytime periods when the seismic system is not operating for comparison of sighting rates and animal behavior with vs. without GI airgun operations. Based on MMVO observations, the GI airgun will be shut-down (see below) when marine mammals are detected within or about to enter a designated EZ. The EZ is an area in which a possibility exists of adverse effects on animal hearing or other physical effects (see Table 1 above for the isopleths as they correspond to the relevant EZs). The MMVOs will continue to maintain watch to determine when the animal(s) are outside the safety radius, and airgun operations will not resume until the animal has left that zone. The predicted distances for the safety radius are listed according to the sound source, water depth, and received isopleths in Table 1.

MMVOs will be appointed by the academic institution conducting the research cruise, with NMFS Office of Protected Resources concurrence. During seismic operations off the coast of New England, a total of three MMVOs are planned to be aboard the *Endeavor*. Two MMVOs (except during meal times, when at least one MMVO will be on watch) will monitor the EZ during daytime GI airgun operations and any night-time startups of the airguns. MMVOs will normally work in daytime shifts of four hour duration or less. The vessel crew will also be instructed to assist in detecting marine mammals and implementing mitigation measures (if practical). Before the start of the seismic survey the crew will be given additional instruction regarding how to do so.

The *Endeavor* is a suitable platform from which MMVOs will conduct marine mammal observations. Two locations are likely as observation stations onboard the *Endeavor*; observations may take place from the flying bridge approximately 11 m (36 ft) above sea level or the bridge (8.2 m or 27 ft).

During the daytime, the MMVO(s) will scan the area around the vessel systematically with standard equipment such as reticle binoculars (e.g., 7x50), optical range finders, and with the naked eye. During darkness, night vision devices (NVDs) will be available, when required. Vessel lights and/or NVDs are useful in sightings some marine mammals at the surface within a short distance from the ship (within the EZ for the two GI airguns). The MMVOs will be in wireless communication with ship's officers on the bridge and scientists in the vessel's operations laboratory, so they can advise promptly of the need for avoidance maneuvers or GI airgun shut-down.

*Speed or Course Alteration* - If a marine mammal is detected outside the EZ, but is likely to enter based on its position and the relative movement of the vessel and animal, then if safety and scientific objectives allow, the vessel speed and/or course may be adjusted to minimize the likelihood of the animal entering the EZ. Typically, during seismic operations, major course and speed adjustments are often impractical when towing long seismic streamers and large source arrays, but are possible in this case because only two GI airguns and a relatively short streamer will be used.

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

- Is visually observed to have left the EZ;
- Has not been seen within the EZ for 10 min in the case of species with shorter dive durations - small odontocetes and pinnipeds; and
- Has not been seen within the EZ for 15 min in the case of species with longer dive durations - mysticetes and large odontocetes, including sperm, pygmy sperm, dwarf sperm, killer, and beaked whales;

The 10 and 15 min periods specified above are shorter than would be used in a large-source project given the small 180 and 190 dB (rms) radii for the two GI airguns.

*Power-down Procedures* - A power-down involves decreasing the number of GI airguns in use from two to one. During turns between successive survey lines, a single GI airgun will be operated. The continued operation of one airgun is intended to alert marine

mammals to the presence of the survey vessel in the area.

**Ramp-up Procedures** - A ramp-up procedure will be followed when the GI airguns begin operating after a specified period without GI airgun operations. It is proposed that, for the present cruise, this period would be approximately five minutes. This period is based on the 180 dB radii for the GI airguns (see Table 1 above) in relation to the planned speed of the *Endeavor* while shooting.

Ramp-up will begin with a single GI airgun (45 in<sup>3</sup>). The second GI airgun (45 in<sup>3</sup>) will be added after five min. During ramp-up, the MMVOs will monitor the EZ, and if marine mammals are sighted, a shut-down will be implemented as though both GI airguns were operational.

If the complete EZ has not been visible for at least 30 min prior to the start of operations in either daylight or nighttime, ramp-up will not commence. If one GI airgun has been operating, ramp-up to full power will be permissible at night or in poor visibility, on the assumption that marine mammals will be alerted to the approaching seismic vessel by the sounds from the single GI airgun and have an opportunity to move away if they choose. A ramp-up from a shut-down may occur at night, but only in intermediate-water depths, where the safety radius is small enough to be visible. Ramp-up of the GI airguns will not be initiated if a marine mammal is sighted within or near the applicable EZs during the day or close to the vessel at night.

**Procedures for Species of Particular Concern** - Several species of concern could occur in the study area. Special mitigation procedures will be used for these species as follows:

(1) The GI airguns, watergun, and sparker will be shut-down if a North Atlantic right whale is sighted at any distance from the vessel;

(2) Concentrations or groups of humpback, fin, sperm, blue, and/or sei whales will be avoided.

A typical "concentration or group" of whales for this survey consists of three or more individuals visually sighted. If a concentration or group of the whale species listed above is sighted and does not appear to be traveling (i.e. feeding, socializing), then Rice will avoid them by implementing a power-down or shut-down, delay seismic operations, or move to another area for seismic data acquisition. If the concentration or group of whales appears to be traveling, then Rice will power-down or shut-down seismic operations and wait for approximately 30 min for the individuals to move out of the study

area before re-initiating seismic operations. Rice and NSF will coordinate their planned marine mammal monitoring program associated with the seismic survey off the coast of New England with applicable U.S. agencies (e.g., NMFS), and will comply with their requirements.

### Reporting

#### *MMVO Data and Documentation*

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

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

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

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

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

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

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

(2) Information needed to estimate the number of marine mammals potentially 'taken by harassment.'

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

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

A report will be submitted to NMFS within 90 days after the end of the

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

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

### Endangered Species Act (ESA)

Under Section 7 of the ESA, NSF has consulted with the NMFS, Office of Protected Resources, Endangered Species Division on this seismic survey. NMFS has also consulted internally pursuant to Section 7 of the ESA on the issuance of an IHA under section 101(a)(5)(D) of the MMPA for this activity. On August 11, 2009, NMFS concluded consultation with NMFS and NSF, and issued a Biological Opinion (BiOp), which concluded that the proposed action and issuance of an IHA are not likely to jeopardize the continued existence of the North Atlantic right, humpback, sei, fin, blue, and sperm whales, and leatherback, green, loggerhead, hawksbill, and Kemp's ridley sea turtles. The BiOp also concluded that designated critical habitat for these species would not be affected by the survey. Relevant Terms and Conditions of the Incidental Take Statement in the BiOp have been incorporated into the IHA.

### National Environmental Policy Act (NEPA)

NSF has prepared an EA titled "Marine Seismic Survey in the Northwest Atlantic Ocean, August 2009." NSF's EA incorporates an "Environmental Assessment (EA) of a Marine Geophysical Survey by the R/V *Endeavor* in the Northwest Atlantic Ocean, August 2009," prepared on behalf of NSF and Rice by LGL Limited, Environmental Research Associates. NMFS has adopted NSF's EA and prepared a Finding of No Significant Impact for the issuance of the IHA.

## Determinations

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

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

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

(2) The fact that cetaceans would have to be closer than 40 m (131 ft) in deep water, 60 m (197 ft) in intermediate depths, and 296 m (971 ft) in shallow water when the two GI airguns are in use from the vessel to be exposed to levels of sound (180 dB) believed to have even a minimal chance of causing PTS;

(3) The fact that pinnipeds would have to be closer than 10 m (33 ft) in deep water, 15 m (49 ft) in intermediate depths, and 147 m (482 ft) in shallow water when the two GI airguns are in use from the vessel to be exposed to levels of sound (190 dB) believed to have even a minimal chance of causing PTS;

(4) The fact that cetaceans would have to be closer than 23 m (76 ft) in deep water, 35 m (115 ft) in intermediate depths, and 150 m (492 ft) in shallow water when the single GI airgun is in use from the vessel to be exposed to levels (180 dB) believed to have even a minimal chance of causing PTS;

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

(6) The fact that marine mammals would have to be closer than 350 m (1,148 ft) in deep water, 525 m (1,722 ft) at intermediate depths, and 1,029 m (3,376 ft) in shallow water when the two GI airguns are in use from the vessel to be exposed to levels of sound (160 dB) believed to have even a minimal chance at causing TTS;

(7) The fact that marine mammals would have to be closer than 220 m (721

ft) in deep water, 330 m (1,083ft) at intermediate depths, and 570 m (1,870 ft) in shallow water when the single GI airgun is in use from the vessel to be exposed to levels of sound (160 dB) believed to have even a minimal chance at causing TTS; and

(8) The likelihood that marine mammal detection ability by trained observers is high at those short distances from the vessel and will trigger shut-downs to prevent injury, and due to the implementation of the other mitigation measures such as ramp-ups. As a result, no take by injury or death is anticipated, and the potential for temporary or permanent hearing impairment is very low and will be avoided through the incorporation of the proposed mitigation measures.

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

## Authorization

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

Dated: August 11, 2009.

**James H. Lecky,**

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

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## DEPARTMENT OF COMMERCE

### Bureau of Industry and Security

#### Materials Technical Advisory Committee; Notice of Partially Closed Meeting

The Materials Technical Advisory Committee will meet on September 10, 2009, 10 a.m., Herbert C. Hoover Building, Room 3884, 14th Street between Constitution & Pennsylvania Avenues, NW., Washington, DC. The Committee advises the Office of the Assistant Secretary for Export Administration with respect to technical questions that affect the level of export

controls applicable to materials and related technology.

## Agenda

### Open Session

1. Opening Remarks and Introduction.
2. Presentation on recently mandated changes to the interagency Commodity Jurisdiction review process.
3. Report on recent changes to the Commerce Control List based on Australia Group Regime list changes.
4. Report of Composite Working group and ECCN review subgroup.
5. New business.
6. Public comments from teleconference and physical attendees.
7. Closed session to follow.

### Closed Session

8. Discussion of matters determined to be exempt from the provisions relating to public meetings found in 5 U.S.C. app. 2 section 10(a)(1) and 10(a)(3).

The open session will be accessible via teleconference to 20 participants on a first come, first serve basis. To join the conference, submit inquiries to Ms. Yvette Springer at [Yspringer@bis.doc.gov](mailto:Yspringer@bis.doc.gov) no later than September 3, 2009.

A limited number of seats will be available during the public session of the meeting. Reservations are not accepted. To the extent time permits, members of the public may present oral statements to the Committee. Written statements may be submitted at any time before or after the meeting. However, to facilitate distribution of public presentation materials to Committee members, the materials should be forwarded prior to the meeting to Ms. Springer via e-mail.

The Assistant Secretary for Administration, with the concurrence of the delegate of the General Counsel, formally determined on October 1, 2008, pursuant to Section 10(d) of the Federal Advisory Committee Act, as amended, that the portion of the meeting dealing with matters the premature disclosure of which would likely frustrate the implementation of a proposed agency action as described in 5 U.S.C. 552b(c)(9)(B) shall be exempt from the provisions relating to public meetings found in 5 U.S.C. app. 2 § 10(a)(1) and 10(a)(3). The remaining portions of the meeting will be open to the public.

For more information, call Yvette Springer at (202) 482-2813.