

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration**

[I.D. 090903C]

Small Takes of Marine Mammals Incidental to Specified Activities; Oceanographic Survey in the Northwest Atlantic Ocean Near Bermuda

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

ACTION: Notice of issuance of an incidental harassment authorization.

SUMMARY: In accordance with provisions of the Marine Mammal Protection Act (MMPA) as amended, notification is hereby given that an Incidental Harassment Authorization (IHA) to take small numbers of marine mammals, by harassment, incidental to conducting an oceanographic survey in the Northwest Atlantic Ocean near Bermuda has been issued to Lamont-Doherty Earth Observatory (LDEO).

DATES: Effective from November 14, 2003 through November 13, 2004.

ADDRESSES: The application, a list of references used in this document, and/or the IHA are available by writing to P. Michael Payne, Chief, Marine Mammal Conservation 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.

FOR FURTHER INFORMATION CONTACT: Sarah C. Hagedorn, Office of Protected Resources, NMFS, (301) 713–2322, ext 117.

SUPPLEMENTARY INFORMATION:**Background**

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

Permission may be granted if NMFS finds that the taking will have a negligible impact on the species or stock(s) and will not have an unmitigable adverse impact on the

availability of the species or stock(s) for subsistence uses and that the permissible methods of taking and requirements pertaining to the monitoring and reporting of such 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.”

Subsection 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. Under Section 3(18)(A), 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; 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.

The term “Level A harassment” means harassment described in subparagraph (A)(i). The term “Level B harassment” means harassment described in subparagraph (A)(ii).

Subsection 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 July 16, 2003, NMFS received an application from LDEO for the taking, by harassment, of several species of marine mammals incidental to conducting a seismic survey by the *R/V Maurice Ewing* within the Northwest Atlantic Ocean off the coast of Bermuda near the Bermuda Rise area, between 29° and 35° N and between 61° and 68° W, during mid- to late-November and early December 2003. These operations will take place within the Exclusive Economic Zone (EEZ) of Bermuda and adjacent international waters. Clearance to conduct the seismic survey in the foreign EEZ has been requested from Bermuda (U.K.). The purpose of this project is to determine what physical and chemical changes have been imparted to the tectonic plate as a result of the eruption of the Bermuda volcano. By understanding what portion of the uplift of the seafloor is caused by

thermal (temporary) versus chemical (permanent) changes to the plate, it will be possible to predict the rate that volcanoes in the middle of plates will sink beneath the waves.

Description of the Activity

The seismic survey will involve a single vessel, the *R/V Maurice Ewing*. The *Maurice Ewing* will deploy an array of 20 airguns as an energy source, and a receiving system consisting of Ocean Bottom Hydrophones (OBH's), 96 sonobuoys, and/or a 6-km (3.2-nm) towed hydrophone streamer. The energy to the airgun array is compressed air supplied by compressors on board the source vessel. As the airgun array is towed along the survey lines, the towed hydrophone streamer or OBH's will receive the returning acoustic signals and transfer the data to the on-board processing system. The OBH's and sonobuoys will be deployed by the *R/V Maurice Ewing*.

All planned geophysical data acquisition activities will be conducted by LDEO scientists, with on-board assistance from the scientists who have proposed the study. The survey will be conducted in the deep ocean depths (>1000 m or 3281 ft) of the Bermuda Rise. The survey program will consist of approximately 2400 km (1296 nm) of survey lines. There will be two intersecting seismic reflection and refraction lines, each approximately 600 km (324 nm) long. One line will be oriented north-south along a magnetic isochron, and the other line will be oriented east-west along the presumed track of the hotspot. The point of intersection of these two lines will be in close vicinity of Bermuda Island. Each of the two lines will be surveyed twice. Along each line, the upper crustal structure will be determined by acquiring multibeam sonar, multichannel seismic (MCS), and sonobuoy refraction data. Then, a linear array of OBH's will be deployed for refraction shooting. The specific configuration of the airgun array will differ between the MCS and OBH surveys (described later in this document). There will be additional operations associated with equipment testing, startup, line changes, and repeat coverage of any areas where initial data quality is sub-standard.

The procedures to be used for the 2003 seismic survey will be similar to those used during previous seismic surveys by LDEO, e.g., in the equatorial Pacific Ocean (Carbotte *et al.*, 1998, 2000). The proposed program will use conventional seismic methodology with a towed airgun array as the energy source and a towed streamer containing