and suburban development, dam construction, herbicide spraying, recreation, and other factors. The petition presents evidence that the population of this species that occurs in Washington is at risk. We also recognize that various State and Federal agencies in Washington, and throughout the species' historic distribution, are actively managing the birds to try and improve their overall population status and/or attempting to restore them to currently unoccupied habitats.

Section 4(b)(3)(B) of the Act requires that, to the maximum extent practicable within 12 months from the date that a petition presenting substantial information is received, we make a finding as to whether it is warranted to list the petitioned species as threatened or endangered. Due to a backlog of court-ordered listing and critical habitat actions and funding constraints, a status review for the sage grouse population that occurs in Washington will probably not be conducted until May 2001. If the 12-month finding determines listing the western sage grouse in Washington is warranted, the designation of critical habitat would be addressed in the subsequent proposed rule.

Public Information Solicited

We are required to promptly commence a review of the status of the species after making a positive 90-day finding on a petition. With regard to this positive petition finding, we are requesting information primarily concerning the species' population status and trends, extent of fragmentation and isolation of other population segments, significance or nonsignificance of the Washington population and/or any other discrete population segments, potential threats to the species, and ongoing management measures that may be important with regard to the conservation of sage grouse in Washington or throughout the remainder of the taxon's historic range. In addition, we request information relating to the designation of critical habitat for western sage grouse in Washington.

References Cited

A complete list of all references cited herein is available on request from the Upper Columbia River Basin Field Office, (See **ADDRESSES** section).

Author: The primary author of this document is Chris Warren, U.S. Fish and Wildlife Service, 11103 E. Montgomery Drive, Spokane, Washington, 99206.

Authority: The authority for this action is the Endangered Species Act (16 U.S.C. 1531 *et seq.*).

Dated: August 18, 2000.

Jamie Rappaport Clark,

Director, U.S. Fish and Wildlife Service.

[FR Doc. 00–21610 Filed 8–23–00; 8:45 am]

BILLING CODE 4310–55–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 216

[Docket No. 000801223-0223-01; I.D. 062000A]

RIN 0648-AO24

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Operation of a Low Frequency Sound Source by the North Pacific Acoustic Laboratory

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

ACTION: Advance notice of proposed rulemaking; receipt of an application for a small take exemption; request for comment and information.

SUMMARY: NMFS has received a request from the University of California San Diego, Scripps Institution of Oceanography (Scripps), for a small take of marine mammals incidental to the continued operation of a low frequency (LF) sound source previously installed off the north shore of Kauai by the Acoustic Thermometry of Ocean Climate (ATOC) project. As a result of that request, NMFS is considering whether to propose regulations that would authorize the incidental taking of a small number of marine mammals. In order to issue regulations for this taking, NMFS must determine that this taking will have no more than a negligible impact on the affected species and stocks of marine mammals. NMFS invites comment on the application and suggestions on the content of the regulations.

DATES: Comments and information must be postmarked no later than September 25, 2000. Comments will not be accepted if submitted via e-mail or the Internet.

ADDRESSES: Comments should be addressed to Donna Wieting, Chief, Marine Mammal Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3226. A copy of the application, which contains the references used in this document, may be obtained by writing to this address, or by telephoning the contact listed here (see **FOR FURTHER INFORMATION CONTACT**). A copy of the draft environmental impact statement (DEIS) may be obtained from Marine Acoustics Inc., 809 Aquidneck Ave., Middletown, RI 02842, attn. Kathy Vigness Reposa, 401-847-7508.

FOR FURTHER INFORMATION CONTACT: Kenneth R. Hollingshead (301) 713-2055, ext. 128.

SUPPLEMENTARY INFORMATION:

Background

Section 101(a)(5)(A) of the Marine Mammal Protection Act (16 U.S.C. 1361 et seq.) (MMPA) directs the Secretary of Commerce (Secretary) to allow, upon request, the incidental, but not intentional taking of small numbers of marine mammals by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if certain findings are made and regulations are issued.

Permission may be granted for periods of 5 years or less if the Secretary finds that the taking will be small, will have no more than 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 Arctic Ocean subsistence uses, and if regulations are prescribed setting forth the permissible methods of taking and the requirements pertaining to the monitoring and reporting of such taking.

Summary of Request

On May 21, 2000, NMFS received an application for an incidental, small take authorization under section 101(a)(5)(A) of the MMPA from Scripps to take marine mammals incidental to the continued operation of a LF sound source previously installed off the north shore of Kauai by the ATOC project. An alternative source location under consideration in the DEIS and here is for Midway Island. A final decision on whether to re-use the ATOC source (or to install a new source and cable at Midway), in order to combine a second phase of research on the feasibility and value of large-scale acoustic thermometry with long range underwater sound transmission studies and marine mammal monitoring and studies will be made based, in part, on findings and determinations made under the National Environmental Policy Act (NEPA). As the principal funding agency for the proposed action, a DEIS has been prepared by the Office of Naval Research (ONR). NMFS is a

cooperating agency in the preparation of this DEIS.

Project Description

Acoustic thermometry is a method for obtaining information about the temperature field in the ocean from precise measurements of the travel times of sound pulses transmitted through the ocean. It is also a technique for acoustic remote sensing of the ocean interior, in which the properties of the ocean between the acoustic sources and receivers are determined, rather than the properties of the ocean at the instruments as is the case for conventional thermometers and current meters. Acoustic thermometry in the ocean is closely related to seismology, in which properties of the Earth's interior are inferred from travel times of earthquake waves.

Under the proposed action, the seabed power cable and sound source from the ATOC project would remain in their present locations on Kauai, and transmissions would continue with approximately the same signal parameters and transmission schedule used in the earlier ATOC project. The typical schedule consists of six 20-minute (min) transmissions (one every 4 hours), every fourth day, with each transmission preceded by a 5-min ramp-up period during which the signal intensity was gradually increased, representing an average duty cycle of 2 percent. With the possible exception of short duration testing with duty cycles of up to 8 percent, or equipment failure, this schedule would continue for a period of 5 years. The signals transmitted by the source would have a center frequency of 75 Hertz (Hz) and a bandwidth of approximately 35 Hz (i.e., sound transmissions are in the frequency band of 57.5-92.5 Hz). Approximately 260 watts of acoustic power would be radiated during transmission. At 1 meter (m)(33 feet (ft)) from the source (at 807 m (2,648 ft) water depth at the Kauai location), sound intensity (i.e., source level) would be about 195 decibels (dB) referenced to the intensity of a signal with a sound pressure level (SPL) of 1 microPascal (1 μPa). According to Scripps, the signal parameters and source level have been found in the ATOC project to provide adequate, but not excessive, signal-to-noise ratios in the receiver ranges of interest.

While the proposed action involves the continued operation of the source installed at the Kauai, HI location, an alternative location under consideration in the ONR DEIS would be installing a sound source and cable at a location off the coast of Midway Island.

Marine Mammals

A summary of the marine mammal species that may potentially be found in the vicinity of the ATOC source at either Kauai or Midway is presented here. For more detail on marine mammal abundance, density and the methods used to obtain this information, reviewers are requested to refer to the ONR DEIS. For general information on North Pacific Ocean marine mammals, reviewers may refer to Barlow et al. (1997).

Six species of baleen whales, humpback (*Megaptera novaengliae*), fin *Balaenoptera physalus*), blue *B. musculus*), Bryde's*B. borealis*), minke (*B. acutorostrata*), and right (*Eubalaena glacialis*) whales, may occur in the Kauai or Midway Atoll areas. Although not reported near Midway Atoll, the humpback whale is the only balaenopterid whale known to be present in reasonably large numbers. Humpback whales are considered abundant in coastal waters of the main Hawaiian Islands from November through April. Fin whales and blue whales have the potential to occur in the area; however, their distribution and abundance in the region is believed to be uncommon (Balcomb, 1987), although only a single fin whale was observed during recent ATOC marine mammal research. Right whales in the North Pacific Ocean are extremely rare and therefore, would also be rare in the Hawaiian Islands. Bryde's whales, and minke whales may be occasionally seen in the area of Midway Atoll (Leatherwood et al., 1988), but are not usually found off Kauai.

Sixteen species of odontocetes (toothed whales, dolphins and porpoises) may be found in the Kauai and Midway areas. These species are sperm whales (*Physeter macrocephalus*), short-finned pilot whales (*Globicephala macrorhynchus*), beaked whales (*Ziphius cavirostris, Berardius bairdi*, and *Mesoplodon spp.*), spinner dolphins (*Stenella longirostris*), spotted dolphin (*Stenella attenuata*), striped dolphin (*Stenella coeruleoalba*), bottlenose dolphins (*Tursiops truncatus*), rough-toothed dolphin (*Steno bredanensis*), pygmy sperm whale (*Kogia breviceps*), dwarf sperm whale (*Kogia simus*), killer whales (*Orcinus orca*), false killer whale (*Pseudorca crassidens*), pygmy killer whale (*Feresa attenuata*), and melon-headed whale (*Peponocephala electra*). It should be noted, however, that the latter 7 species were not sighted in or near the proposed Kauai area during marine mammal surveys conducted between 1993 and 1998.

The Hawaiian monk seal (*Monachus schauinslandi*) occurs in the area of the Leeward Hawaiian Islands.

Potential Impacts on Marine Mammals

The effects of underwater noise on marine mammals are highly variable, and can be categorized as follows (based on Richardson et al., 1995): (1) The noise may be too weak to be heard at the location of the animal (i.e. lower than the prevailing ambient noise level, the hearing threshold of the animal at relevant frequencies, or both); (2) the noise may be audible but not strong enough to elicit any overt behavioral response; (3) the noise may elicit behavioral reactions of variable conspicuousness and variable relevance to the well being of the animal; these can range from subtle effects on respiration or other behaviors (detectable only by statistical analysis) to active avoidance reactions; (4) upon repeated exposure, animals may exhibit diminishing responsiveness (habituation), or disturbance effects may persist (the latter is most likely with sounds that are highly variable in characteristics, unpredictable in occurrence, and associated with situations that the animal perceives as a threat); (5) any man-made noise that is strong enough to be heard has the potential to reduce (mask) the ability of marine mammals to hear natural sounds at similar frequencies, including calls from conspecifics and/or echolocation sounds, and environmental sounds such as ice or surf noise; and (6) very strong sounds have the potential to cause either a temporary or a permanent reduction in hearing sensitivity (referred to respectively as temporary threshold shift (TTS) or permanent threshold shift (PTS). Few data on the effects of non-explosive sounds on hearing thresholds of marine mammals have been obtained, however, in terrestrial mammals, and presumably in marine mammals, received sound levels must far exceed the animal's hearing threshold for there to be any TTS. Received levels must be even higher for there to be risk of PTS.

For this project, Scripps has established the threshold for risk of harm as a single ping at 180 dB re 1 μPa_{rms} (180 dB). Harm is defined in this context as onset TTS, or the lower end of Level A harassment. Although recently some scientists have questioned whether TTS is actually an injury (see Navy, 1999, Appendix E-1, Criteria for Marine Mammal Auditory Shift), in this action, TTS is being categorized as the onset for a Level A harassment take. In this proposed action, a marine mammal would have to receive one ping greater than, or equal

to 180 dB in order to be considered receiving a non-serious injury (Level A harassment) or many pings at a received level (RL) slightly lower than 180 dB in order to potentially incur a significant biological response (Level B harassment).

In order to understand the biological significance of the risk of Level A or Level B harassment, it is necessary to determine how this risk might affect a population of marine mammals, starting with acoustic criteria. First, the marine mammal must be able to hear LF sound. Second, the animal must incur a reaction to the LF sound that is more than momentary. Third, any effect from LF sound must involve a significant behavioral change in a biologically important activity, such as feeding, breeding, or migration, all of which are potentially important for reproductive success of the population.

Based on California and Hawaii ATOC Marine Mammal Research Program (MMRP), Scripps found no overt or obvious short-term changes (1) in the abundance and distribution of marine mammals in response to the ATOC transmissions (intensive statistical analyses of aerial survey data showed some subtle shifts in distribution of humpback (and possibly sperm) whales away from the California site (Calambokidis et al., 1998) and humpback whales away from the Kauai site); (2) in the behavior of humpback whales or elephant seals in response to the playback of ATOC-like sounds (intensive statistical analyses revealed some subtle changes in the behavior of humpback whales (Frankel and Clark, 1998; 1999b); or (3) in the singing behavior of humpback whales in the vicinity of the Kauai ATOC sound source. Bioacoustic experts concluded that these subtle effects would not adversely affect the survival of an individual whale or the status of the North Pacific humpback whale population (Frankel and Clark, 1999a).

To assess the potential environmental impact of the North Pacific Acoustic Laboratory (NPAL) sound source on marine mammals, it was necessary for Scripps to predict the sound field that a given marine mammal species could be exposed to over time. This is a multi-part process involving (1) the ability to measure or estimate an animal's location in space and time, (2) the ability to measure or estimate the three-dimensional sound field at these times and locations, (3) the integration of these two data sets to estimate the potential impact of the sound field on a specific animal in the modeled population, (4) the conversion of the resultant cumulative exposures for a modeled population into an estimate of the risk from a prolonged disruption of a biologically important behavior, and (5) the conversion of these estimates of behavioral risk into an assessment of risk in terms of the level of potential biological removal.

Next, a relationship for converting the resultant cumulative exposures for a modeled population into an estimate of the risk to the entire population of a prolonged disruption of a biologically important behavior and of injury was developed. This process assessed risk in relation to RL and repeated exposure. The resultant ≥risk continuum≥ is based on the assumption that the threshold of risk is variable and occurs over a range of conditions rather than at a single threshold.

Taken together, the recent results on marine mammals from LF sounds, the acoustical modeling, and the risk assessment, provide an estimate of potential environmental impacts to marine mammals.

The acoustical modeling process was accomplished by Scripps using the U.S. Navy's standard acoustical performance prediction transmission loss model-Parabolic Equation (PE) version 3.4. The results of this model are the primary input to the Acoustic Integration Model (AIM). AIM was used in this analysis to estimate mammal sound exposures and integrate simulated characteristics of marine mammals (e.g., species distribution, density, dive profiles, and general movement, NPAL sound transmissions (e.g., duty cycle, transmission length), and the predicted sound field for each transmission to estimate acoustic exposure during a typical NPAL source transmission. A description of the PE and AIM models (including AIM input parameters for animal movement, diving behavior, and marine mammal distribution, abundance, and density) and the risk continuum analysis are described in detail in the Scripps application and the ONR DEIS and are not discussed further in this document. At this time, NMFS recommends reviewers read these documents if additional information is desired. If NMFS proceeds with rulemaking on this action, that rulemaking document will discuss the risk continuum and estimates of affected marine mammal populations in greater detail.

Scripps, however, has drawn some general conclusions from the relative abundance of various marine mammal species in relationship to the NPAL sound field. Under the proposed alternative (utilizing the ATOC sound source at Kauai), the only mysticete (baleen) whale species expected in the area in substantial numbers is the humpback whale, and Scripps believes that because they usually prefer nearshore locations (inside the 100-fathom (188 m) depth contour), few are expected to be exposed to received levels greater than 120 dB (i.e, the SPL level presumed by Scripps to be zero for marine mammals having the potential to incur a prolonged disturbance of biologically important behavior). Similarly, sperm whales are the most common deep-diving odontocete (toothed) whale in the area, but because they usually prefer offshore waters (i.e., water depths greater than 4,000 m (12,700 ft)), few are expected to be exposed to received levels greater than 120 dB. According to Scripps, these distributional preferences are supported by the Kauai ATOC MMRP (Mobley, 1999a).

Using the risk continuum and acoustic modeling Scripps estimated the potential for biologically significant reactions by marine mammals under the proposed action. Scripps determined that only humpback whales that remain in the vicinity of the sound source for a full day of transmissions may potentially experience any effect from the source transmissions. However, humpback whales typically travel parallel to the coast of Kauai, and, therefore, Scripps believes, would probably not receive sound from more than a single transmission.

At the Midway site, the mysticete whale expected in greatest abundance is the Bryde's whale. Because they usually prefer nearshore locations, Scripps expects few animals would be exposed to RLs greater than 120 dB. Similarly, sperm whales are the most common deep-diving odontocetes in the area, but because they usually prefer offshore waters (i.e., water depths greater than 4,000 m (12,700 ft)), few are expected to be exposed to received levels greater than 120 dB. A much higher abundance of Hawaiian monk seals is expected near Midway Island than Kauai since this species prefers the small, mostly uninhabited chain of islands and atolls northwest of the main Hawaiian Islands.

Using the risk continuum and acoustic modeling Scripps determined that there would be no potential for biologically significant effects on marine mammals from source transmissions at Midway Island, although some subtle effects may occur.

Mitigation

Scripps' proposed action includes mitigation that would minimize the potential effects of the NPAL sound source to marine mammals. First, the sound source would operate at the

minimum duty cycle necessary to support the large-scale acoustic thermometry and long-range propagation objectives. Transmissions would contiue with approximately the same transmission schedule as that used during the first feasibility phase of the ATOC study. Second, any increases in the duty cycle beyond the nominal 2 percent (with a maximum of 8 percent) would not occur during the peak humpback whale season (January-April). The proposed action includes the possibility of an 8-percent duty cycle for up to 2 months out of each year; this action, however, would not occur during the period of time humpback whales inhabit Hawaiian waters. Third, the sound source would operate at the minimum power level necessary to support large-scale acoustic thermometry and long-range sound transmission objectives. The fourth mitigation measure proposed is to ramp-up the NPAL sound source transmissions over a 5-min period. This is believed to reduce the potential for startling marine mammals in the vicinity of the NPAL sound source and provides them an opportunity to move away from the sound source before transmitting at the maximum power levels.

Monitoring and Reporting

In an effort to understand the potential for long-term effects of man-made sound on marine mammals, Scripps proposes to monitor the distribution and abundance of marine mammals in the vicinity of the sound source, by conducting a total of 4 aerial surveys during each humpback whale season. The data collected will be compared with data collected during the Kauai ATOC Marine Mammal Research Program. Reports on the aerial survey results will be available to the public in reports. A report on activites will be provided to NMFS annually.

NEPA

The ONR has released a DEIS under NEPA (see **ADDRESSES**). NMFS is a cooperating agency, as defined by the Council on Environmental Quality (40 CFR 1501.6), in the preparation of this DEIS.

Endangered Species Act (ESA)

NMFS will be consulting with the ONR under section 7 of the ESA on this action. In that regard, the ONR has submitted to NMFS a Biological Assessment under the ESA. This consultation will be concluded prior to a determination on issuance of a final rule and exemption.

Classification

This action has been determined to be not significant under Executive Order 12866.

Information Solicited

NMFS requests interested persons to submit comments, information, and suggestions concerning the request and the structure and content of the regulations to allow the taking. NMFS requests that commenters review the ONR DEIS and/or Scripps' small take application and not submit comments based solely on this document. NMFS will consider information submitted in developing proposed regulations to authorize the taking. If NMFS proposes regulations to allow this take, interested parties will be given ample time and opportunity to comment on the proposed rule.

Dated: August 15, 2000.

Penelope D. Dalton,

Assistant Administrator for Fisheries, National Marine Fisheries Service.

[FR Doc. 00–21679 Filed 8–23–00; 8:45 am]

Billing Code: 3510-22-S