

FOR FURTHER INFORMATION CONTACT:

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SUPPLEMENTARY INFORMATION:**Background**

Section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA) (16 U.S.C. 1361 *et seq.*) 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, have a negligible impact on the species or stock(s) of affected marine mammals, and will not have an unmitigable adverse impact on the availability of the species or stock(s) for 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. 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.

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.

(B) The term "Level A harassment" means harassment described in subparagraph (A)(i).

(C) The term "Level B harassment" means harassment described in subparagraph (A)(ii).

Summary of Request

On October 23, 2002, NMFS received an application from the Naval Air Weapons Station, China Lake (NAWS), under section 101(a)(5)(A) of the MMPA, requesting an authorization, effective from August 26, 2003 through August 25, 2008, for the harassment of small numbers of three species of marine mammals incidental to target missile launch operations conducted by the Naval Air Warfare Center Weapons Division (NAWCWD) on SNI, one of the Channel Islands in the Southern California Bight. These regulations, if implemented, would allow NMFS to issue an annual LOA to NAWS, which would replace the process of issuance of

annual Incidental Harassment Authorizations (IHAs) under section 101(a)(5)(D) of the MMPA (see 66 FR 41843, August 9, 2001; 67 FR 56271, September 3, 2002). This action is being undertaken in part based upon recommendations made on May 23, 2001 and August 6, 2002 by the Marine Mammal Commission, under section 202(a)(4) of the MMPA. The current IHA expires on August 26, 2003.

According to the NAWS' application, these operations may occur at any time during the year depending on test and training requirements and meteorological and logistical limitations. On occasion, two or three launches may occur in quick succession on a single day. NAWS anticipates an average of 40 launches annually of Vandal (or similar sized) vehicles from SNI's Alpha Launch Complex (ALC) and smaller supersonic and subsonic missiles and targets from either ALC or the Building 807 Launch Site (Building 807). Launches at this level would be an increase as the NAWCWD conducted a total of 19 launches (including one dual launch) of Vandal rockets (14 launches) and 5 other missiles and targets from SNI between August 15, 2001 and July 18, 2002 under an IHA.

The purpose of these launches is to support activities associated with operations on the NAWCWD's Point Mugu Sea Range. The Sea Range is used by the U.S. and Allied military services to test and evaluate sea, land, and air weapon systems; to provide realistic training opportunities; and to maintain operational readiness of these forces. Some of the SNI launches are used for practicing defensive drills against the types of weapons simulated by these vehicles. Some launches may be conducted for the related purpose of testing new types of targets, to verify that they are suitable for use as operational targets. While SNI is under the land management responsibility of NAWS, planned missile and other target launches are conducted by the NAWCWD. A detailed description of the operations is contained in the NAWS application (NAWS, 2002) which is available upon request (see **ADDRESSES**).

Measurement of Airborne Sound Levels

The following section is provided to facilitate understanding of airborne and impulsive noise characteristics. In its application, NAWS has referenced both pressure and energy measurements for sound levels. For pressure, the sound pressure level (SPL) is described in terms of decibels (dB) re micro-Pascal (micro-Pa), and for energy, the sound exposure level (SEL) is described in terms of dB re micro-Pa²-second. In

other words, SEL is the squared instantaneous sound pressure over a specified time interval, where the sound pressure is averaged over 5 percent to 95 percent of the duration of the sound (in this case, one second).

Airborne noise measurements are usually expressed relative to a reference pressure of 20 micro-Pa, which is 26 dB above the underwater sound pressure reference of 1 micro-Pa. However, the conversion from air to water intensities is more involved than this and is beyond the scope of this document. NMFS recommends interested readers review NOAA's tutorial on this issue: <http://www.pmel.noaa.gov/vents/acoustics/tutorial/tutorial.html>. Also, airborne sounds are often expressed as broadband A-weighted (dBA) or C-weighted (dBC) sound levels. A-weighting refers to frequency-dependent weighting factors applied to sound in accordance with the sensitivity of the human ear to different frequencies. With A-weighting, sound energy at frequencies below 1 kHz and above 6 kHz are de-emphasized and approximates the human ear's response to sounds below 55 dB. C-weighting corresponds to the relative response to the human ear to sound levels above 85 dB. C-weight scaling is useful for analyses of sounds having predominantly low-frequency sounds, such as sonic booms.

While it is unknown whether the pinniped ear responds similarly to the human ear, a study by C. Malme (pers. commun. to NMFS, March 5, 1998) found that for predicting noise effects, the Navy believes that A-weighting is better than unweighted pressure levels because the pinniped's highest in-air hearing sensitivity is at higher frequencies than that of humans. In this document, whenever possible sound levels have been provided with A-weighting.

Description of the Specified Activity

In general, launch vehicles are the Vandal and a variety of other supersonic and subsonic missiles and targets. Most other vehicles used would be similar in size and weight or slightly smaller and would have characteristics generally similar to the Vandal. However, NAWS also has requested a marine mammal take authorization for up to 3 launches annually for vehicles that may be larger than the Vandal, but would be under 50,000 lbs (23,000 kilograms (kg)) in weight.

Vandal Target Missiles

The Vandal (designated MQM-8G) target missile is a relatively large, air-breathing (ramjet) vehicle with no