DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 217

[Docket No. 131120978-4452-02]

RIN 0648-BD80

Takes of Marine Mammals Incidental to Specified Activities; U.S. Navy Missile Launches from San Nicolas Island, California

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

ACTION: Final rule.

SUMMARY: Upon application from the U.S. Navy (Navy), Naval Air Warfare Center Weapons Division (NAWCWD), we (the National Marine Fisheries Service) are issuing regulations under the Marine Mammal Protection Act (MMPA) to govern the unintentional taking of marine mammals incidental to missile launches from San Nicolas Island (SNI) from June 2014 through June 2019. These regulations allows us to issue a Letter of Authorization (LOA) for the incidental take of marine mammals during the Navy’s specified activities and timeframes, set forth the permissible methods of taking, set forth other means of effecting the least practicable adverse impact on marine mammal species or stocks and their habitat, and set forth requirements pertaining to the monitoring and reporting of the incidental take.


ADDRESSES: To obtain an electronic copy of the Navy’s application or other referenced documents, visit the internet at:
http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications. Documents cited in this notice may also be viewed, by appointment, during regular business hours, at the Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910.

FOR FURTHER INFORMATION CONTACT: John Fiorentino, Office of Protected Resources, NMFS, (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

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

Authorization for incidental takings 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 (where relevant), 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.”
The National Defense Authorization Act of 2004 (NDAA) (Public Law 108-136) removed the “small numbers” and “specified geographical region” limitations indicated above and amended the definition of “harassment” as it applies to a “military readiness activity” to read as follows (Section 3(18)(B) of the MMPA): (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) Any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

Summary of Request

On July 24, 2013, NMFS received an application from the Navy for the taking of marine mammals incidental to missile launches from San Nicolas Island (SNI), California. NMFS determined that the application was adequate and complete on November 18, 2013.

The Navy proposed to continue a launch program for missiles and targets from several launch sites on SNI between June 2014 and June 2019. These activities are considered military readiness activities. Marine mammals hauled out on SNI may be exposed to sound from missile launches. The Navy requests authorization to take three marine mammal species by Level B harassment: northern elephant seal (Mirounga angustirostris), Pacific harbor seal (Phoca vitulina), and California sea lion (Zalophus californianus).

The Navy is currently operating under an authorization to take marine mammals incidental to missile launches from SNI, which expires June 3, 2014 (74 FR 26587).

Description of the Specified Activity

Overview
The Navy is continuing a launch program for missiles and targets from several launch sites on SNI. Missiles vary from tactical and developmental weapons to target missiles used to test defensive strategies and other weapons systems. Some launch events involve a single missile, while others involve the launch of multiple missiles either in quick succession or at intervals of a few hours. Up to 200 missiles (40 missiles per year) may be launched over the 5-year period, but the number and type of launch varies depending on operational needs.

The purpose of these launches is to support testing and training activities associated with operations on the NAWCWD 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 launches are used for practicing defensive drills against the types of weapons simulated by these missiles and some launches are conducted for the related purpose of testing new types of targets. 

**Dates and Duration**

Launches of this type have been occurring at SNI for many years and are expected to continue indefinitely into the future. NMFS is issuing a 5-year Letter of Authorization for missile launches taking place between June 2014 and June 2019. The timing of these launches is variable and subject to testing and training requirements and meteorological and logistical limitations. To meet the Navy’s operational testing and training requirements, launches may be required at any time of year and any time of day. Up to 200 missiles (40 missiles per year) may be launched over the 5-year period and the Navy is proposing that up to 10 launches per year may occur at night. Given the launch acceleration and flight speed of the missiles, most launch events are of extremely short duration. Strong launch sounds are typically detectable near the surrounding beaches for no more than a few seconds per launch (Holst et al., 2005a, 2008, 2011).
**Specified Geographic Region**

SNI is one of the eight Channel Islands in the Southern California Bight, located about 105 kilometers (km) southwest of Point Mugu. Missile launches will occur from the western part of SNI (see Figure 2 in the Navy’s LOA application). The missiles fly generally westward through the Point Mugu Sea Range. The primary launch locations are the Alpha Launch Complex, which is located on the west-central part of SNI, and Building 807 Launch Complex, which is located at the western end of SNI. Other launch pads are located nearby.

**Detailed Description of Activities**

Missiles included in the Navy’s request range from relatively small and quieter missiles like the Rolling Airframe Missile to larger and louder missiles like the Terrier Black-Brant. While other missiles may be launched in the future, the largest missile analyzed here is 23,000 kilograms (kg). A description of the types of missiles that may be launched at SNI during the 5-year period and their sound characteristics was provided in the proposed rule (79 FR 13022, March 7, 2014) and includes, in summary: the Rolling Airframe Missile (RAM), GQM-163A “Coyote,” Multi-stage Sea Skimming Target (MSST), Terrier (Black Brant, Lynx, and Orion), and RIM-161 Standard Missile 3 (SM-3).

**General Launch Operations** – Aircraft and helicopter flights between the Point Mugu airfield on the mainland, the airfield on SNI, and the target sites in the Sea Range are a routine part of a planned launch operation. These flights generally do not pass at low level over the beaches where pinnipeds are expected to be hauled out. Therefore, these flights are not further considered in this document.

Movements of personnel are restricted near the launch sites at least several hours prior to a launch for safety reasons. No personnel are allowed on the western end of SNI during
launches. Movements of personnel or missiles near the island’s beaches are also restricted at other times of the year for purposes of environmental protection and preservation of cultural resource sites. Launch monitoring equipment would be deployed and activated prior to the launches.

Comments and Responses

On March 7, 2014 (79 FR 13022), NMFS published a proposed rule to authorize the taking of marine mammals incidental to missile launches at SNI. During the 45-day public comment period, NMFS received comments from the Marine Mammal Commission (Commission) and a private citizen. The Commission’s comment is specific to section 101(a)(5)(A) of the MMPA and NMFS’ analysis of impacts to marine mammals and is summarized and addressed below and throughout the final rule.

Comment 1: The Commission recommended that NMFS require the Navy to estimate the number of sea lion takes based on the greatest mean number of takes that has been estimated in any previous monitoring year multiplied by 40.

Response: NMFS agrees that the potential number of annual launches (40) should be considered when estimating take in order to ensure that the Navy remains in compliance with the MMPA. NMFS reassessed the take estimates for California sea lion by calculating the annual average number of takes per launch and multiplying each average by 40. This total (24,360) is the number of California sea lions takes NMFS is authorizing over the 5-year rule (an average of 4,872 takes per year). This is the maximum number of takes expected, considering the Navy only conducted 42 launches over the past 5 years.
Comment 2: A private citizen recommended that the Navy submit annual reports describing non-compliance, if any, with required mitigation measures—including frequency of occurrence, date of occurrence, and reason for occurrence of non-compliance.

Response: It is standard practice for the Navy to include this type of information in their summary of implementation of mitigation measures in the annual interim technical reports and comprehensive technical reports submitted to NMFS. These reports are available on the NMFS Office of Protected Resources website at http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications.

Description of Marine Mammals in the Area of the Specified Activity

There are seven species of marine mammals with possible or confirmed occurrence in the area of the specified activity: northern elephant seals, harbor seals, California sea lions, northern fur seals (Callorhinus ursinus), Guadalupe fur seal (Arctocephalus townsendi), Steller sea lions (Eumetopias jubatus), and southern sea otters (Enhydra lutris nereis). The northern fur seal is considered depleted under the MMPA; the Guadalupe fur seal is listed as threatened under the Endangered Species Act (ESA) and depleted under the MMPA; and the eastern distinct population segment of Steller sea lion was delisted under the ESA in 2013. The northern fur seal, Guadalupe fur seal, and Steller sea lion are considered rare at SNI and takes of these species have not been observed under the Navy’s current MMPA authorization. Therefore, these three species were not considered further. The southern sea otter is managed by the U.S. Fish and Wildlife Service and was also not considered further. Table 1 includes species-specific information on the three species likely to occur in the area of the specified activity.
Table 1. Species information on the marine mammals likely to occur in the area of the specified activity.

<table>
<thead>
<tr>
<th>Common Name</th>
<th>Scientific Name</th>
<th>Status</th>
<th>Occurrence</th>
<th>Seasonality</th>
<th>Range</th>
<th>Abundance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern elephant sea</td>
<td><em>Mirounga angustirostris</em></td>
<td>-</td>
<td>Common</td>
<td>Year-round</td>
<td>Mexico to Alaska</td>
<td>124,000</td>
</tr>
<tr>
<td>Harbor seal</td>
<td><em>Phoca vitulina</em></td>
<td>-</td>
<td>Common</td>
<td>Year-round</td>
<td>Baja California to Aleutian Islands</td>
<td>30,196</td>
</tr>
<tr>
<td>California sea lion</td>
<td><em>Zalophus californianus</em></td>
<td>-</td>
<td>Common</td>
<td>Year-round</td>
<td>Mexico to Canada</td>
<td>296,750</td>
</tr>
</tbody>
</table>

Further information on the biology and local distribution of these species can be found in the Navy’s application (see ADDRESSES), and the NMFS Marine Mammal Stock Assessment Reports, which are available online at: [http://www.nmfs.noaa.gov/pr/species/](http://www.nmfs.noaa.gov/pr/species/).

Potential Effects of the Specified Activity on Marine Mammals

This section of the proposed Incidental Harassment Authorization (IHA) (79 FR 13022, March 7, 2014) included a summary and discussion of the ways that the types of stressors associated with the specified activity (e.g., missile launch noise) have been observed to impact marine mammals. The “Estimated Take by Incidental Harassment” section later in this document will include a quantitative analysis of the number of individuals that are expected to be taken by this activity. The “Negligible Impact Analysis” section will include the analysis of how this specific activity will impact marine mammals and will consider the content of this section, the “Estimated Take by Incidental Harassment” section, the “Proposed Mitigation” section, and the “Anticipated Effects on Marine Mammal Habitat” section to draw conclusions regarding the likely impacts of this activity on the reproductive success or survivorship of individuals and from that on the affected marine mammal populations or stocks.
In summary, potential effects of the specified activity on marine mammals involve both acoustic and non-acoustic effects. Acoustic effects are related to sound produced by the engines of all launch vehicles, and, in some cases, their booster rockets. Potential non-acoustic effects could result from the physical presence of personnel during placement of video and acoustical monitoring equipment. However, careful deployment of monitoring equipment is not expected to result in any disturbance to pinnipeds hauled out nearby. Any visual disturbance caused by passage of a vehicle overhead is likely to be minor and brief as the launch vehicles are relatively small and move at great speed. Detailed information on each potential effect (acoustic impacts, behavioral reactions of pinnipeds to missile launches, stampede-related injury or mortality from missile launches) was provided in the proposed rule (79 FR 13022, March 7, 2014) and that information has not changed.

Anticipated Effects on Marine Mammal Habitat

Three species of pinnipeds use various beaches around SNI as places to rest, molt, and breed. These beaches consist of sand, rock ledges, and rocky cobble. Pinnipeds continue to use beaches around the western end of SNI, and are expanding their use of some beaches, despite ongoing launch activities for many years. Similarly, it appears that sounds from prior launches have not affected use of coastal areas at Vandenberg Air Force Base where similar missile launches occur.

Pinnipeds do not feed when hauled out on these beaches and the airborne launch sounds will not persist in the water near the island for more than a few seconds. Therefore, it is not expected that the launch activities will have any impact on the food or feeding success of these pinnipeds.
Boosters from missiles may be jettisoned shortly after launch and fall on the island, but are not expected to impact beaches. Fuel contained in these boosters is consumed rapidly and completely, so there would be no risk of contamination even in the very unlikely event that a booster did land on a beach. Therefore, launch activities are not expected to have any long-term, significant effects on marine mammal habitat.

Mitigation

In order to issue an incidental take authorization (ITA) under section 101(a)(5)(A) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (where relevant).

The NDAA of 2004 amended the MMPA as it relates to military-readiness activities and the ITA process such that “least practicable adverse impact” shall include consideration of personnel safety, practicality of implementation, and impact of the effectiveness of the “military readiness activity.” The activities described in the Navy’s application are considered military readiness activities.

As during launches conducted under previous regulations, where practicable, the Navy will implement the following mitigation measures, provided that doing so will not compromise operational safety, human safety, national security, or other requirements or mission goals:

1. Limit activities near the beaches in advance of launches;
2. Avoid launch activities during harbor seal pupping season (February through April);
3. Limit launch activities during other pinniped pupping seasons;
(4) Not launch missiles from the Alpha Complex at low elevation (less than 305 m) on launch azimuths that pass close to pinniped haul-out sites when occupied;

(5) Avoid launching multiple missiles in quick succession over haul-out sites, especially when young pups are present; and

(6) Maintain a minimum altitude of 305 m from pinniped haul-outs and rookeries for aircraft and helicopter flight paths during missile launch operations, except in emergencies or for real-time security incidents (e.g., search-and-rescue, fire-fighting, adverse weather conditions), which may require approaching pinniped haul-outs and rookeries closer than 305 m.

Mitigation Conclusions

NMFS has carefully evaluated the applicant’s proposed mitigation measures and considered a range of other measures in the context of ensuring that NMFS prescribes the means of effecting the least practicable impact on the affected marine mammal species and stocks and their habitat. No additional mitigation measures were recommended during the public comment period on the proposed rule. Our evaluation of potential measures included consideration of the following factors in relation to one another:

- The manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals;
- The proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and
- The practicability of the measure for applicant implementation, including consideration of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.
Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed below:

1. Avoidance or minimization of injury or death of marine mammals wherever possible (goals 2, 3, and 4 may contribute to this goal).

2. A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to received levels of noise, or other activities expected to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing harassment takes only).

3. A reduction in the number of times (total number or number at biologically important time or location) individuals would be exposed to received levels of noise, or other activities expected to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing harassment takes only).

4. A reduction in the intensity of exposures (either total number or number at biologically important time or location) to received levels of noise, or other activities expected to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing the severity of harassment takes only).

5. Avoidance or minimization of adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

6. For monitoring directly related to mitigation – an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation.
Based on our evaluation of the applicant’s proposed measures, as well as other measures considered by NMFS, NMFS has determined that the proposed mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, while also considering personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity.

Monitoring and Reporting

In order to issue an ITA for an activity, section 101(a)(5)(A) of the MMPA states that NMFS must set forth, “requirements pertaining to the monitoring and reporting of such taking.” The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for ITAs must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that are expected to be present in the proposed action area. The Navy submitted a marine mammal monitoring plan as part of their application. It can be found in section 13 of their application. NMFS did not receive any comments suggesting a modification or supplementation to the proposed monitoring plan during the public comment period.

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

1. An increase in the probability of detecting marine mammals, both within the mitigation zone (thus allowing for more effective implementation of the mitigation) and in general to generate more data to contribute to the analyses mentioned below.
2. An increase in our understanding of how many marine mammals are likely to be exposed to levels of noise that we associate with specific adverse effects, such as behavioral harassment, TTS, or PTS.

3. An increase in our understanding of how marine mammals respond to stimuli expected to result in take and how anticipated adverse effects on individuals (in different ways and to varying degrees) may impact the population, species, or stock (specifically through effects on annual rates of recruitment or survival) through any of the following methods:
   a. Behavioral observations in the presence of stimuli compared to observations in the absence of stimuli (need to be able to accurately predict received level, distance from source, and other pertinent information).
   b. Physiological measurements in the presence of stimuli compared to observations in the absence of stimuli (need to be able to accurately predict received level, distance from source, and other pertinent information).
   c. Distribution and/or abundance comparisons in times or areas with concentrated stimuli versus times or areas without stimuli.

4. An increased knowledge of the affected species.

5. An increase in our understanding of the effectiveness of certain mitigation and monitoring measures.

Monitoring Measures

The Navy will conduct the following monitoring measures, which are further detailed in section 13 of their application:

- The Navy will continue a standard, ongoing, land-based monitoring program to assess effects on harbor seals, northern elephant seals, and California sea lions on SNI. This
monitoring will occur at up to three sites at different distances from the launch site before, during, and after each launch, depending upon presence of pinnipeds during each launch. The monitoring will be via autonomous video or Forward Looking Infrared (FLIR) cameras. Pinniped behavior on the beach will be documented prior to the planned launch operations, during the launch, and following the launch. Northern elephant seals will not be specifically targeted for monitoring, though may be present in the field of view when monitoring other species.

- During each launch, the Navy will obtain calibrated recordings of the sounds of the launches as received at different distances from the missile’s flightline. The Navy anticipates that acoustic data will be acquired at each video monitoring location, to estimate sounds received by pinnipeds, and at the launch site to estimate maximum potential sound received. These recordings will provide for a thorough description of launch sounds as received at different locations on western SNI, and of the factors that affect received sound levels. By analysis of the paired data on behavioral observations and received sound levels, the Navy will further characterize the relationship between the two. If there is a clear correlation, the Navy will determine the “dose-response” relationship.

  **Visual Monitoring** – The Navy will conduct marine mammal and acoustic monitoring during launches from SNI, using simultaneous video recording of pinniped behavior and audio recording of launch sounds. The land-based monitoring will provide data required to characterize the extent and nature of the takes. In particular, the monitoring will provide the information needed to document the occurrence, nature, frequency, and duration of any
changes in pinniped behavior that might result from missile launches. Components of this documentation will include the following:

- Identify and document any change in behavior or movements that may occur at the time of the launch;
- Compare received levels of launch sound with pinniped responses, based on acoustic and behavioral data from up to three monitoring sites at different distances from the launch site and missile path during each launch and attempt to establish the dose-response relationship for launch sounds under different launch conditions;
- Ascertain periods or launch conditions when pinnipeds are most and least responsive to launch activities; and
- Document take by harassment and, although unlikely, any mortality or injury.

The launch monitoring program will include remote video recordings before, during, and after launches when pinnipeds are present in the area of potential impact, and visual assessment by trained observers before and after the launch. Remote cameras are essential during launches because safety rules prevent personnel from being present in most of the areas of interest. In addition, video techniques will allow simultaneous observations at up to three different locations, and will provide a permanent record that could be reviewed in detail. No specific effort will be made to monitor elephant seals, though they may be present in mixed groups when monitoring other species.

**Acoustical Monitoring** – The Navy will take acoustical recordings during each monitored launch. These recordings should be suitable for quantitative analysis of the levels and characteristics of the received launch sounds. The Navy will use up to four autonomous audio recorders to make acoustical measurements. During each launch, these will be located as close
as practical to monitored pinniped haul-out sites and near the launch pad itself. The monitored haul-out sites will typically include one site as close as possible to the missile’s planned flight path and one or two locations farther from the flight path within the area of potential impact with pinnipeds present.

**Reporting Measures**

The Navy will submit annual interim technical reports to NMFS no later than December 31 for the duration of the regulations. These reports will provide full documentation of methods, results, and interpretation pertaining to all monitoring tasks for launches during each calendar year. However, only preliminary information will be included for any launches during the 60-day period immediately preceding submission.

The Navy will submit a draft comprehensive technical report to NMFS 180 days prior to the expiration of the regulations, providing full documentation of the methods, results, and interpretation of all monitoring tasks for launches to date. A revised final comprehensive technical report, including all monitoring results during the entire period of the regulations will be due 90 days after the regulations expire.

The Navy will ensure that NMFS is notified immediately if an injured or dead marine mammal is judged to result from launch activities at any time.

**Monitoring Results from Previously Authorized Activities**

Between 2001 and 2012, a maximum of 1,990 California sea lions, 395 harbor seals, and 130 northern elephant seals were estimated to have been potentially harassed in any single monitoring year incidental to missile launches at SNI (Holst et al., 2008, 2010, 2011; Ugoretz and Greene, 2012). These numbers may represent multiple exposures of single animals, as beaches were monitored repeatedly over the course of the year during numerous launches.
However, some animals that displayed behavioral reactions may have been missed, as not all areas can be monitored during the launches. Pinnipeds that were potentially affected left the haul-out site in response to the launch, left the water at a vigorous pace, or exhibited prolonged movement or behavioral changes relative to their behavior immediately prior to the launch.

Estimated Take by Incidental Harassment

The NDAA of 2004 (Public Law 103-136) removed the “small numbers” and “specified geographical region” limitations indicated above and amended the definition of “harassment” as it applies to a “military readiness activity” to read as follows (section 3(18)(B) of the MMPA): (i) Any act that injures or has the significant potential to injure a marine mammal or marine mammal stock in the wild [Level A Harassment]; or (ii) Any act that disturbs or is likely to disturb a marine mammal or marine mammal stock in the wild by causing disruption of natural behavioral patterns, including, but not limited to, migration, surfacing, nursing, breeding, feeding, or sheltering, to a point where such behavioral patterns are abandoned or significantly altered [Level B Harassment].

Any takes of marine mammals are most likely to result from operational noise as launch missiles pass near haul-out sites, and/or associated visual cues. This section estimates maximum potential take and the likely annual take of marine mammal species during missile launches at SNI.

The launch sounds could be received for several seconds and, to be conservative, are considered to be prolonged rather than transient sounds. Given the variety of responses documented previously for the sounds of man-made activities lasting several seconds, a sound exposure level of 100 dB re 20 microPascals² per second is considered appropriate as a disturbance criterion for pinnipeds hauled out at the west end of SNI, particularly for California
sea lions and northern elephant seals. Some pinnipeds that haul-out on the western end of SNI are expected to be within the area where sound exposure levels exceed 100 dB. Far fewer pinnipeds are expected to occur within this area and none of the recorded sound exposure levels appear to be high enough to induce TTS.

Based on the reaction criterion, the distance to which it is assumed to extend, and the estimated numbers of pinnipeds exposed to sound exposure levels at or above 100 dB, the Navy estimated the number of pinnipeds on the west end of SNI that might be taken. The Navy made an additional adjustment for harbor seals, as they are known to sometimes react strongly to sound exposure levels below 100 dB. The Navy considered the percentage of animals that actually responded to launch noise in previous monitoring years in order to estimate the number of animals potentially harassed. Recorded sound exposure levels in different areas of SNI were compared to ground-based census data of pinnipeds. These censuses were typically conducted seasonally when maximum numbers of pinnipeds were known to occur on land.

Northern Elephant Seal

To estimate the potential maximum numbers of northern elephant seals that might be exposed to sound levels at or above 100 dB in 2014, the highest pup counts within map areas K, L, and M (see Figure 16 of the Navy’s application) in any year between 2000 and 2010 were used (yielding a total of 1,854), and a continuing growth rate of 7.3 percent since 2010 was applied. This results in a maximum potential pup count of 2,458 for those map areas in 2014. Based on data collected from 1988 to 2010, the total count of all age classes expected to be hauled out is approximately twice the number of pups hauled out. Therefore, the maximum number hauled out in areas of potential impact for 2014 was approximated by doubling the maximum potential calculated pup count. Thus, the maximum expected number of elephant
seals that may be exposed to sound levels at or above 100 dB during 2014 is estimated to be 4,916.

In the absence of any contrary data, it is assumed that elephant seals exhibit high site fidelity when they return to shore, and that the 4,916 elephant seals calculated above represent the maximum total number that might be exposed to “strong” (at or above 100 dB) sounds during the year, assuming missiles are launched when all animals are hauled out and all beaches within the area receive strong sounds. If some seals haul out on different beaches at various times during the year, sometimes within and sometimes outside the area exposed to levels at or above 100 dB, then the number of times an individual elephant seal might be exposed to strong launch sounds would be reduced. However, the total number of individuals that would be exposed at least once over the course of the year would probably be increased. Movements from one beach to another may be more likely for juveniles than for older seals, given that this has been observed in other pinniped species (such as for harbor seal pups; Thompson et al. 1994).

Published studies and results from the 2001–2012 monitoring at SNI indicate that elephant seals are more tolerant of transient noise and other forms of disturbance than are California sea lions or harbor seals. If so, the actual impact zone is smaller than assumed here, and the number of elephant seals that might be taken by harassment would be substantially lower than the number of seals present within the area where sound levels are at or above 100 dB. For example, during the 2001-2012 launch program, the majority of northern elephant seals did not exhibit more than brief startle reactions in response to launches (Holst et al. 2005, 2008, 2010, 2011; Ugoretz and Greene, 2012). Most individuals merely raised their heads briefly upon hearing the launch sounds and then quickly returned to their previous activity pattern (usually sleeping). During some launches, a small proportion (typically much less than 10 percent) of
northern elephant seals moved a short distance (<10 m) away from their resting site, but settled within minutes. Elephant seals rarely moved or reacted more than this.

Therefore, the Navy estimates that up to 10 percent of 4,916 elephant seals (or 492 seals) might be taken by Level B harassment during each year of planned launch operations.

**Harbor Seals**

To determine the potential numbers of harbor seals that might be taken by harassment, the Navy used the maximum total harbor seal count for SNI (858) and assumed that the population has remained relatively stable. Previous monitoring from 2001-2012 showed that most monitored harbor seals entered the water in response to launches. Previous monitoring also indicates that about 70 percent of harbor seals that haul out on SNI use the beaches within areas K, L, and M. The Navy conservatively estimates that 80 percent of harbor seals on SNI may be impacted by missile launches. Therefore, the Navy estimates that a maximum of 686 harbor seals might be taken by Level B harassment during a 1-year period.

**California Sea Lion**

To estimate the maximum potential number of sea lions that might be hauled out within areas exposed to sound levels at or above 100 dB, the Navy calculated the maximum number of sea lions occurring within map areas K, L, and M (Figure 16 of the Navy’s application) in any year from 2001-2011. The Navy adjusted this maximum, 14,963 sea lions, for a population growth rate of 5.6 percent per year, which results in a maximum of 20,749 sea lions of all ages and sexes that might be hauled out within the areas exposed to sound levels at or above 100 dB in a single year. For most of the year, only females and pups are expected to be ashore, so the number of animals exposed to these sound levels from any one launch is likely less than the estimated total number.
Based on past monitoring, the Navy concluded that approximately 10 percent of the California sea lions exposed to launch sounds during each year of launch activity might exhibit behavioral disturbance. Therefore, the Navy estimated that a maximum of 2,740 California sea lions on SNI might be taken by Level B harassment during a 1-year period. However, based on the Commission’s comment during the proposed rule public comment period, NMFS agreed that the maximum number of annual launches (40) should also be a factor when estimating take. NMFS used the Navy’s draft comprehensive monitoring report to calculate the annual average of potential takes per launch. Then, each average was multiplied by 40 and summed to get 24,360 takes over a 5-year period. NMFS estimates that an average of 4,872 takes of California sea lions may occur each year.

Summary

NMFS is authorizing take according to the Navy’s estimates and also considering monitoring results from the past 5 years and the potential for up to 40 launches to occur each year. The estimated take numbers are provided in Table 2 below for each marine mammal species. These take estimates do not take mitigation measures into consideration.

Table 2. Estimated and authorized take of marine mammals on an annual basis.

<table>
<thead>
<tr>
<th>Common Species Name</th>
<th>Estimated Take by Level B Harassment</th>
<th>Abundance of Stock</th>
<th>Population Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northern elephant seal</td>
<td>492</td>
<td>124,000</td>
<td>unknown</td>
</tr>
<tr>
<td>Harbor seal</td>
<td>686</td>
<td>30,196</td>
<td>stable</td>
</tr>
<tr>
<td>California sea lion</td>
<td>4,872</td>
<td>296,750</td>
<td>increasing</td>
</tr>
</tbody>
</table>

Analysis and Preliminary Determinations

Negligible Impact
Negligible impact is “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 (50 CFR 216.103). A negligible impact finding is based on the lack of likely adverse effects on annual rates of recruitment or survival (i.e., population-level effects). An estimate of the number of Level B harassment takes, alone, is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be “taken” through behavioral harassment, NMFS must consider other factors, such as the likely nature of any responses (their intensity, duration, etc.), the context of any responses (critical reproductive time or location, migration, etc.), as well as the number and nature of estimated Level A harassment takes, the number of estimated mortalities, and effects on habitat.

NMFS has determined that target and missile launch activities and aircraft and helicopter operations from SNI, as described in this document and in the Navy’s application, will result in no more than Level B harassment of northern elephant seals, harbor seals, and California sea lions. The effects of these military readiness activities will be limited to short-term, localized changes in behavior, including temporarily vacating haul-outs, and possible temporary threshold shift in the hearing of any pinnipeds that are in close proximity to a launch pad at the time of a launch. These effects are not likely to have a significant or long-term impact on feeding, breeding, or other important biological functions. No take by injury or mortality is anticipated, and the potential for permanent hearing impairment is unlikely. Furthermore, during 5 years of monitoring under the Navy’s current authorization, there was no evidence of injury, mortality, pup abandonment, or other significant impact beyond behavioral harassment during or immediately succeeding any of the 33 launches. No known pinniped injuries or mortalities have
occurred since monitoring began in 2001, and few, if any, pinnipeds are believed to have received sound levels strong enough to elicit TTS.

Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the required monitoring and mitigation measures, NMFS finds that the total marine mammal take from the Navy’s missile launches will have a negligible impact on the affected marine mammal species or stocks.

Impact on Availability of Affected Species for Taking for Subsistence Uses

There are no relevant subsistence uses of marine mammals implicated by this action. Therefore, NMFS has determined that the total taking of affected species or stocks will not have any unmitigable adverse impact on the availability of such species or stocks for taking for subsistence purposes.

Endangered Species Act (ESA)

No species listed under the ESA are expected to be affected by these activities. Therefore, NMFS has determined that a section 7 consultation under the ESA is not required.

National Environmental Policy Act (NEPA)

NMFS prepared an Environmental Assessment (EA) analyzing the potential issuance of regulations and an LOA to the Navy for the period 2014-2019. The final EA was prepared in May 2014 and NMFS issued a Finding of No Significant Impact for this action. These documents are available on our website at http://www.nmfs.noaa.gov/pr/permits/incidental.htm#applications. NMFS determined that issuance of the rulemaking and subsequent LOA will not significantly impact the quality of the human environment and that preparation of an Environmental Impact Statement is not required.
Classification

The Office of Management and Budget has determined that this proposed rule is not significant for purposes of Executive Order 12866.

Pursuant to the Regulatory Flexibility Act (RFA), the Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration at the proposed rule stage that this action will not have a significant economic impact on a substantial number of small entities. NMFS did not receive any public comments addressing this certification. Therefore, a Final Initial Regulatory Flexibility Analysis is not required and none has been prepared.

The Assistant Administrator for Fisheries has determined that there is good cause under the Administrative Procedure Act (5 U.S.C 553(d)(3)) to waive the 30-day delay in the effective date of the measures contained in the final rule. The existing regulations for SNI expire June 3, 2014 and launches may be scheduled soon after. Any delay of enacting the final rule would result in the Navy’s non-compliance with the MMPA (should the Navy conduct missile launches without an LOA), thereby resulting in the potential for unauthorized takes of marine mammals. Moreover, the Navy is ready to implement the rule immediately. For these reasons, the Assistant Administrator finds good cause to waive the 30-day delay in the effective date.
List of Subjects in 50 CFR Part 217

Exports, Fish, Imports, Incidental take, Indians, Labeling, Marine mammals, Navy, Penalties, Reporting and recordkeeping requirements, Seafood, Sonar, Transportation.

Dated: June 2, 2014

_________________________
Eileen Sobeck,
Assistant Administrator for Fisheries,
National Marine Fisheries Service.

For reasons set forth in the preamble, 50 CFR part 217 is amended as follows:

PART 217--REGULATIONS GOVERNING THE TAKE OF MARINE MAMMALS

INCIDENTAL TO SPECIFIED ACTIVITIES

1. The authority citation for part 217 continues to read as follows:

Authority: 16 U.S.C. 1361 et seq.

2. Subpart F is added to part 217 to read as follows:

Subpart F--Taking Of Marine Mammals Incidental to Target and Missile Launch Activities from San Nicolas Island, CA

Sec.

217.50 Specified activity and specified geographical region.

217.51 Effective dates.

217.52 Permissible methods of taking.

217.53 Prohibitions.

217.54 Mitigation.

217.55 Requirements for monitoring and reporting.
217.56 Applications for Letters of Authorization.

217.57 Letters of Authorization.

217.58 Renewal and modifications of Letters of Authorization.

Subpart F--Taking Of Marine Mammals Incidental to Target and Missile Launch Activities from San Nicolas Island, CA

§ 217.50 Specified activity and specified geographical region.

(a) Regulations in this subpart apply only to the incidental taking of marine mammals specified in paragraph (b) of this section by the Naval Air Warfare Center Weapons Division, U.S. Navy, and those persons it authorizes to engage in target missile launch activities and associated aircraft and helicopter operations at the Naval Air Warfare Center Weapons Division facilities on San Nicolas Island, California.

(b) The incidental take of marine mammals under the activity identified in paragraph (a) of this section is limited to the following species: northern elephant seals (*Mirounga angustirostris*), harbor seals (*Phoca vitulina*), and California sea lions (*Zalophus californianus*).

(c) This Authorization is valid only for activities associated with the launching of a total of 40 vehicles (e.g., RAM, Coyote, MSST, Terrier, SM-3, or similar) from Alpha Launch Complex and smaller missiles and targets from Building 807 on San Nicolas Island, California.

§ 217.51 Effective dates.

Regulations in this subpart are effective from June 3, 2014, through June 3, 2019.

§ 217.52 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to §216.106 and 217.57 of this chapter, the Holder of the Letter of Authorization may incidentally, but not intentionally, take marine mammals by harassment, within the area described in §217.50, provided the activity is in
compliance with all terms, conditions, and requirements of the regulations and the appropriate Letter of Authorization.

(b) The activities identified in § 217.50 must be conducted in a manner that minimizes, to the greatest extent practicable, any adverse impacts on marine mammals and their habitat.

(c) The incidental take of marine mammals is authorized for the species listed in § 217.50(b) and is limited to Level B Harassment.

§ 217.53 Prohibitions.

Notwithstanding takings contemplated in § 217.50 and authorized by a Letter of Authorization issued under §§ 216.106 and 217.57 of this chapter, no person in connection with the activities described in § 217.50 may:

(a) Take any marine mammal not specified in § 217.50(b);

(b) Take any marine mammal specified in § 217.50(b) other than by incidental, unintentional harassment;

(c) Take a marine mammal specified in § 217.50(b) if such taking results in more than a negligible impact on the species or stocks of such marine mammal; or

(d) Violate, or fail to comply with, the terms, conditions, and requirements of this subpart or a Letter of Authorization issued under §§ 216.106 and 217.57 of this chapter.

§ 217.54 Mitigation.

(a) When conducting operations identified in § 217.50(c), the mitigation measures contained in the Letter of Authorization issued under §§ 216.106 and 217.57 must be implemented. These mitigation measures include, but are not limited to:

(1) The holder of the Letter of Authorization must not enter pinniped haul-out sites below the missile's predicted flight path for 2 hours prior to planned missile launches.
(2) The holder of the Letter of Authorization must avoid, whenever possible, launch activities during harbor seal pupping season (February to April), unless constrained by factors including, but not limited to, human safety, national security, or for vehicle launch trajectory necessary to meet mission objectives.

(3) The holder of the Letter of Authorization must limit, whenever possible, launch activities during other pinniped pupping seasons, unless constrained by factors including, but not limited to, human safety, national security, or for vehicle launch trajectory necessary to meet mission objectives.

(4) The holder of the Letter of Authorization must not launch vehicles from the Alpha Complex at low elevation (less than 1,000 feet (305 m)) on launch azimuths that pass close to pinniped haul-out sites when occupied.

(5) The holder of the Letter of Authorization must avoid, where practicable, launching multiple target missiles in quick succession over haul-out sites, especially when young pups are present.

(6) The holder of the Letter of Authorization must limit launch activities during nighttime hours, except when required by the test objectives.

(7) Aircraft and helicopter flight paths must maintain a minimum altitude of 1,000 feet (305 m) from pinniped haul-outs and rookeries, except in emergencies or for real-time security incidents (e.g., search-and-rescue, fire-fighting), which may require approaching pinniped haul-outs and rookeries closer than 1,000 feet (305 m).

(8) If post-launch surveys determine that an injurious or lethal take of a marine mammal has occurred or there is an indication that the distribution, size, or productivity of the potentially affected pinniped populations has been affected, the launch procedure and the monitoring
methods must be reviewed, in cooperation with NMFS, and, if necessary, appropriate changes must be made through modification to a Letter of Authorization, prior to conducting the next launch of the same vehicle under that Letter of Authorization.

(9) Additional mitigation measures as contained in a Letter of Authorization.

(b) [Reserved]

§ 217.55 Requirements for monitoring and reporting.

(a) Unless specified otherwise in the Letter of Authorization, the Holder of the Letter of Authorization must notify the Administrator, West Coast Region, NMFS, by letter or telephone, at least 2 weeks prior to activities possibly involving the taking of marine mammals. If the authorized activity identified in § 217.50 is thought to have resulted in the mortality or injury of any marine mammals or in any take of marine mammals not identified in § 217.50(b), then the Holder of the Letter of Authorization must notify the Director, Office of Protected Resources, NMFS, or designee, by telephone (301-427-8401), and the Administrator, West Coast Region, NMFS, or designee, by telephone (562-980-3232), within 48 hours of the discovery of the injured or dead animal.

(b) The National Marine Fisheries Service must be informed immediately of any changes or deletions to any portions of the proposed monitoring plan submitted, in accordance with the Letter of Authorization.

(c) The holder of the Letter of Authorization must designate biologically trained, on-site individual(s), approved in advance by NMFS, to record the effects of the launch activities and the resulting noise on pinnipeds.

(d) The holder of the Letter of Authorization must implement the following monitoring measures:
(1) **Visual land-based monitoring.** (i) Prior to each missile launch, an observer(s) will place three autonomous digital video cameras overlooking chosen haul-out sites located varying distances from the missile launch site. Each video camera will be set to record a focal subgroup within the larger haul-out aggregation for a maximum of 4 hours or as permitted by the videotape capacity.

(ii) Systematic visual observations, by those individuals, described in paragraph (c) of this section, of pinniped presence and activity will be conducted and recorded in a field logbook a minimum of 2 hours prior to the estimated launch time and for no less than 1 hour immediately following the launch of target missiles.

(iii) Systematic visual observations, by those individuals, described in paragraph (c) of this section, of pinniped presence and activity will be conducted and recorded in a field logbook a minimum of 2 hours prior to launch, during launch, and for no less than 1 hour after the launch of the BQM-34, BQM-74, Tomahawk, RAM target and similar types of missiles.

(iv) Documentation, both via autonomous video camera and human observer, will consist of:

(A) Numbers and sexes of each age class in focal subgroups;

(B) Description and timing of launch activities or other disruptive event(s);

(C) Movements of pinnipeds, including number and proportion moving, direction and distance moved, and pace of movement;

(D) Description of reactions;

(E) Minimum distances between interacting and reacting pinnipeds;

(F) Study location;

(G) Local time;
(H) Substratum type;
(I) Substratum slope;
(J) Weather condition;
(K) Horizontal visibility; and
(L) Tide state.

(2) **Acoustic monitoring.** (i) During all target missile launches, calibrated recordings of
the levels and characteristics of the received launch sounds will be obtained from three different
locations of varying distances from the target missile's flight path. To the extent practicable,
these acoustic recording locations will correspond with the haul-out sites where video and human
observer monitoring is done.

(ii) Acoustic recordings will be supplemented by the use of radar and telemetry systems
to obtain the trajectory of target missiles in three dimensions.

(iii) Acoustic equipment used to record launch sounds will be suitable for collecting a
wide range of parameters, including the magnitude, characteristics, and duration of each target
missile.

(e) The holder of the Letter of Authorization must implement the following reporting
requirements:

(1) For each target missile launch, the lead contractor or lead observer for the holder of
the Letter of Authorization must provide a status report to NMFS, West Coast Regional Office,
providing reporting items found under the Letter of Authorization, unless other arrangements for
monitoring are agreed upon in writing.

(2) The Navy shall submit an annual report describing their activities and including the
following information:
(i) Timing, number, and nature of launch operations;
(ii) Summary of mitigation and monitoring implementation;
(iii) Summary of pinniped behavioral observations; and
(iv) Estimate of the amount and nature of all takes by harassment or by other means.

(3) The Navy shall submit a draft comprehensive technical report to the Office of Protected Resources and West Coast Regional Office, NMFS, 180 days prior to the expiration of the regulations in this subpart, providing full documentation of the methods, results, and interpretation of all monitoring tasks for launches to date plus preliminary information for missile launches during the first 6 months of the regulations.

(4) A revised final comprehensive technical report, including all monitoring results during the entire period of validity of the Letter of Authorization, will be due 90 days after the end of the period of effectiveness of the regulations in this subpart.

(5) The final report will be subject to review and comment by NMFS. Any recommendations made by NMFS must be addressed in the final comprehensive technical report prior to acceptance by NMFS.

(f) Activities related to the monitoring described in paragraphs (c) and (d) of this section, or in the Letter of Authorization issued under §§ 216.106 and 217.57 of this chapter, including the retention of marine mammals, may be conducted without the need for a separate scientific research permit.

(g) In coordination and compliance with appropriate Navy regulations, the NMFS may, at its discretion, place an observer on San Nicolas Island for any activity involved in marine mammal monitoring either prior to, during, or after a missile launch in order to monitor the impact on marine mammals.
\section*{§ 217.56 Applications for Letters of Authorization}

To incidentally take marine mammals pursuant to the regulations in this subpart, the U.S. citizen (as defined by § 216.6 of this chapter) conducting the activity identified in § 217.50 (the U.S. Navy) must apply for and obtain either an initial LOA in accordance with § 217.57 or a renewal under § 217.58.

\section*{§ 217.57 Letters of Authorization}

(a) A Letter of Authorization, unless suspended or revoked, will be valid for a period of time not to exceed the period of validity of this subpart.

(b) Each Letter of Authorization will set forth:

(1) Permissible methods of incidental taking;

(2) Means of effecting the least practicable adverse impact on the species, its habitat, and on the availability of the species for subsistence uses (i.e., mitigation); and

(3) Requirements for mitigation, monitoring, and reporting.

(c) Issuance and renewal of the Letter of Authorization will be based on a determination that the total number of marine mammals taken by the activity as a whole will have no more than a negligible impact on the affected species or stock of marine mammal(s).

\section*{§ 217.58 Renewals and Modifications of Letters of Authorization}

(a) A Letter of Authorization issued under §§ 216.106 and 217.57 of this chapter for the activity identified in § 217.50 will be renewed or modified upon request of the applicant, provided that:

(1) The proposed specified activity and mitigation, monitoring, and reporting measures as well as the anticipated impacts, are the same as those described and analyzed for these
(2) NMFS determines that the mitigation, monitoring, and reporting measures required by the previous LOA under these regulations were implemented.

(b) For LOA modification or renewal requests by the applicant that include changes to the activity or the mitigation, monitoring, or reporting measures (excluding changes made pursuant to the adaptive management provision of this chapter) that do not change the findings made for the regulations or result in no more than a minor change in the total estimated number of takes (or distribution by species or years), NMFS may publish a notice of proposed LOA in the Federal Register, including the associated analysis illustrating the change, and solicit public comments before issuing the LOA.

(c) An LOA issued under §§ 216.106 and 217.57 of this chapter for the activity identified in § 217.50 may be modified by NMFS under the following circumstances:

(1) Adaptive management. NMFS may modify (including augment) the existing mitigation, monitoring, or reporting measures (after consulting with the Navy regarding the practicability of the modifications) if doing so creates a reasonable likelihood of more effectively accomplishing the goals of the mitigation and monitoring set forth in the preamble for these regulations.

(i) Possible sources of data could contribute to the decision to modify the mitigation, monitoring, and reporting measures in an LOA:

(A) Results from the Navy’s monitoring from the previous year(s);

(B) Results from other marine mammal and/or sound research or studies; or
(C) Any information that reveals marine mammals may have been taken in a manner, extent, or number not authorized by these regulations or subsequent LOAs.

(ii) If, through adaptive management, the modifications to the mitigation, monitoring, or reporting measures are substantial, NMFS will publish a notice of proposed LOA in the Federal Register and solicit public comment.

(2) Emergencies. If NMFS determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 217.50(b), a Letter of Authorization may be modified without prior notice or opportunity for public comment. Notice would be published in the Federal Register within 30 days of the action.

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