

level and accommodates several fixed and mobile launchers that range from 30 m (98 ft) to 150 m (492 ft) from the nearest shoreline. For these smaller vehicles, launch trajectories from Building 807 may range from 6 to 45 degrees and cross over the nearest beach at altitudes from 15 to 190 m (50 to 625 ft).

Sound measurements were collected from the launch of a BQM-34 at the Point Mugu Naval Air Station (NAS) in 1997. Burgess and Greene (1998) found that for this launch, the A-weighted SPL ranged from 92 dB (re 20 micro-Pa) (SEL of 102.2 dB re 20 micro-Pa²-sec) at 370 m (1,200 ft) to 145 dB (re 20 micro-Pa) (SEL of 142.2 dB re 20 micro-Pa²-sec) at 15 m (50 ft). These estimates are approximately 20 dB lower than that of a Vandal launch at similar distances (Greene, 1999). The measured Terrior Orion SPL ranged from 89 to 138 dB and the SEL from 93 to 138 dB, although the SPL/SEL of 138 dB appears to be anomalously high (Lawson, 2002). The SPL/SELs for the AGS launches ranged from 95 to 150 dB (93 to 137 dB SEL) and the RAM launch SPL was 126 dB (131 dB SEL). These measurements were all flat-weighted, meaning that A-weighted SPL/SELs values were several decibels lower.

General Launch Operations

Aircraft and helicopter flights between NAS on the mainland, the airfield on SNI and the target sites in the Sea Range will be a routine part of any planned launch operation. These operational flights do not pass at low level over the beaches where pinnipeds are expected to be hauled out. In addition, movements of personnel are restricted near the launch sites 2 hours prior to a launch, no personnel are allowed on the western end of SNI during Vandal and other vehicle launches, and various environmental protection restrictions exist near the island's beaches during other times of the year.

Comments and Responses

On May 9, 2003 (68 FR 24905), NMFS published a notice of proposed rulemaking on the Navy's application for an incidental take authorization and requested comments, information and suggestions concerning the request. During the 45-day public comment period, NMFS received comments from several members of the public and the Marine Mammal Commission (Commission). The letters from individuals did not raise significant issues on the proposed rule, and only expressed concern over missile launches based on an article in the

media, so a response is not necessary. The Commission supports NMFS' intent to implement incidental take regulations for the Navy's activities on SNI provided that the mitigation and monitoring activities described in the NAWS petition for regulations are incorporated into the proposal.

Comment 1: The Commission requests clarification in the final rule document regarding the statement that mitigation measures would be followed when "operationally practicable."

Response: The NAWS request noted that mitigation measures would be followed whenever operationally practicable, provided that doing so would not compromise operational safety requirements or mission goals. For example, the Navy will avoid night launches whenever the parameters of the test or training do not require a night launch. However, if a night launch is required by the parameters of the test, the Navy will need to launch at night. Last year, for example, the Navy raised the elevation on one launch from what was originally proposed and the objectives were still met. The problem is that the mitigation requirements cannot be unconditional; some tests may require night launching or launching in quick succession and some launches may require low azimuths, etc.

Comment 2: The Commission asks how the proposed mitigation measures satisfy the requirement of section 101(a)(5)(ii)(I) of the MMPA that the activity will result in the least practicable adverse impact on the subject species or stocks and their habitat.

Response: In order for NMFS to implement effective mitigation, it must determine that such measures would be practical. The practical mitigation measures identified by the NAWCD are provided later in this document (*see Mitigation*) and in more detail in the Final Environmental Assessment on the Navy Request for a Letter of Authorization (Final EA). These measures have been in place under previous and current IHAs for this activity. No comments were received during the public comment periods for this and previous authorizations that suggested additional practical mitigation measures, and NMFS is unaware of additional measures that could be imposed.

Comment 3: The Commission notes that NMFS is attempting to modify the statutory definition of Level B harassment to be only activities which pose "biologically significant disturbance" (i.e., "a disturbance of a behavior pattern that has the potential to have an effect on the reproduction or

survival of the animal or species"). As the Commission has pointed out in several previous letters, the Commission believes that the proposed NMFS modification is contrary to the existing statutory definition of harassment.

Response: NMFS addressed the Commission's concern most recently in the notice of issuance of an IHA for Vandal launches from SNI (67 FR 56271, September 3, 2002). In addition, the scientific basis for determining the appropriate isopleths (lines of equal pressure) for the onset of marine mammal harassment can be found in the preamble to the proposed rule (68 FR 24905, May 9, 2003) and this document. For this action, NMFS agrees with the applicant that California sea lions and northern elephant seals will sometimes be harassed by launch sounds with SEL's of 100 dBA (re 20 micro-Pa²-sec) or higher and Pacific harbor seals will sometimes be similarly harassed at an SEL of 90 dBA or higher. Pinnipeds inside those isopleths at the time of the missile launch are presumed to be harassed, whether or not an actual disturbance is noted. However, NMFS does not consider reactions such as a pinniped assuming an alert posture by raising its head or exhibiting other minor body movements to be level B harassment, because these kinds of behaviors are not disruptions of a biologically important behavior pattern. In contrast, sounds that cause some or all of the animals to move along the beach or leave a haul-out beach for the water would be harassment because there is a disruption of haulout activities. This is consistent with the MMPA definition of Level B harassment. NMFS is interested in receiving any scientific information indicating that pinnipeds are harassed at lower noise levels.

Description of Habitat and Marine Mammals Affected by the Activity

A detailed description of the Channel Islands/southern California Bight ecosystem and its associated marine mammals can be found in several documents (Le Boeuf and Brownell, 1980; Bonnell *et al.*, 1981; Lawson *et al.*, 1980; Stewart, 1985; Stewart and Yochem, 2000; Sydeman and Allen, 1999) and is not repeated here.

Many of the beaches in the Channel Islands provide resting, molting or breeding places for species of pinnipeds including: northern elephant seals (*Mirounga angustirostris*), harbor seals (*Phoca vitulina*), California sea lions (*Zalophus californianus*), northern fur seals (*Callorhinus ursinus*), and Steller sea lions (*Eumetopias jubatus*). On SNI, three of these species, northern elephant