

### **Effects of Target Missile Launches and Associated Activities on Subsistence Needs**

There are no subsistence uses for these pinniped species in California waters, and, thus, there are no anticipated effects on subsistence needs.

### **Effects of Target Missile Launches and Associated Activities on Marine Mammal Habitat on SNI**

Harbor seals, California sea lions, and northern elephant seals use various beaches around SNI as places to rest, molt, and breed. These beaches consist of sand (e.g., Red Eye Beach), rock ledges (e.g., Phoca Beach) and rocky cobble (e.g., Vizcaino Beach). Pinnipeds do not feed when hauled out on these beaches, and the airborne launch sounds will mostly reflect or refract from the water surface and, except for sounds within a diameter of approximately 30 degrees directly below the launch vehicle, will not penetrate into the water column. The sounds that do penetrate will not persist in the water for more than a few seconds. Therefore, the Navy does not expect that launch activities will have any impact on the food or feeding success of these animals. The solid rocket booster from the Vandal target and the JATO bottles from the BMQs are jettisoned shortly after launch and fall into the sea west of SNI. While it is theoretically possible that one of these boosters might instead land on a beach, the probability of this occurring is very low. Fuel contained in the boosters and JATO bottles is consumed rapidly and completely, so there would be no risk of contamination even if a booster or bottle did land on the beach. Overall, the proposed target missile launches and associated activities are not expected to cause significant impacts on habitats or on food sources used by pinnipeds on SNI.

### **Mitigation**

To avoid additional harassment to the pinnipeds on beach haul out sites and to avoid any possible sensitizing or predisposing of pinnipeds to greater responsiveness towards the sights and sounds of a launch, NAWCWD Point Mugu will limit its activities near the beaches in advance of launches. Existing safety protocols for Vandal launches provide a built-in mitigation measure. That is, personnel are normally not allowed near any of the pinniped beaches close to the flight track on the western end of SNI within two hours prior to a launch. Where practicable, NAWCWD Point Mugu will adopt the following additional mitigation measures when doing so will

not compromise operational safety requirements or mission goals: (1) The Navy will attempt to limit launch activities during pinniped pupping seasons, particularly harbor seal pupping season; (2) the Navy will attempt not to launch vehicles at low elevation on launch azimuths that pass close to beach haul-out site(s); (3) the Navy will attempt to avoid multiple target launches in quick succession over haul-out sites, especially when young pups are present; and, (4) the Navy will attempt to limit launch activities during the night.

### **Monitoring**

As part of its application, NAWS provided a proposed monitoring plan, similar to that adopted for the 2001/2002 and 2002/2003 IHAs (see 66 FR 41834, August 9, 2001; 67 FR 56271, September 3, 2002), for assessing impacts to marine mammals from Vandal and smaller subsonic target and missile launch activities on SNI. This monitoring plan is described in their application (NAWS, 2002).

The Navy proposes to conduct the following monitoring during the first year under an LOA and regulations.

#### *Land-Based Monitoring*

In conjunction with a biological contractor, the Navy will continue its land-based monitoring program to assess effects on the three common pinniped species on SNI: northern elephant seals, harbor seals, and California sea lions. This monitoring would occur at three different sites of varying distance from the launch site before, during, and after each launch. The monitoring would be via autonomous video cameras.

During the day of each missile launch, the observer would place three digital video cameras overlooking chosen haul out sites. Each camera would be set to record a focal subgroup within the haul out aggregation for a maximum of 4 hours or as permitted by the videotape capacity.

Following each launch, all digital recordings will be transferred to DVDs for analysis. A DVD player/computer with high-resolution freeze-frame and jog shuttle will be used to facilitate distance estimation, event timing, and characterization of behavior. Details of analysis methods can be found in LGL Ltd. Environmental Research Associates et al. (LGL, 2002).

#### *Acoustical Measurements*

During each launch, the Navy would obtain calibrated recordings of the levels and characteristics of the received launch sounds. Acoustic data would be

acquired using three Autonomous Terrestrial Acoustic Recorders (ATAR) at three different sites of varying distances from the target's flight path. ATARs can record sounds for extended periods (dependent on sampling rate) without intervention by a technician, giving them the advantage over traditional digital audio tape (DAT) recorders should there be prolonged launch delays of as long as 10 hours. To the extent possible, acoustic recording locations would correspond with the sites where video monitoring is taking place. The collection of acoustic data would provide information on the magnitude, characteristics, and duration of sounds that pinnipeds may be exposed to during a launch. In addition, the acoustic data can be combined with the behavioral data collected via the land-based monitoring program to determine if there is a dose-response relationship between received sound levels and pinniped behavioral reactions. Once collected, sound files will be transferred onto compact discs (CDs) and sent to the acoustical contractor for sound analysis.

For further details regarding the installation and calibration of the acoustic instruments and analysis methods refer to LGL (2002).

### **Reporting Requirements**

An interim technical report is proposed to be submitted to NMFS 60 days prior to the expiration of each annual LOA issued under these regulations, along with a request for a follow-on annual LOA. This interim technical report will provide full documentation of methods, results, and interpretation pertaining to all monitoring tasks for launches during the period covered by the LOA. However, only preliminary information would be available to be included for any launches during the 60-day period immediately preceding submission of the interim report to NMFS. In the unanticipated event that any cases of pinniped mortality are judged to result from launch activities at any time during the period covered by these regulations, this event will be reported to NMFS immediately.

The proposed 2003–04 launch monitoring activities will constitute the third year of formal, concurrent pinniped and acoustical monitoring during launches from SNI. Several of the questions about effects of such launch activities on pinnipeds ashore are expected to be answered before the first LOA is issued based on the 2001–2003 monitoring under IHAs. Additional questions will be answered during the first year of monitoring under