

450 5th Street, NW, Washington, DC 20549-6009. Comments can be submitted electronically at the following E-mail address: rule-comments@sec.gov. All comment letters should refer to File No. S7-16-98; include this file number on the subject line if E-mail is used. All comments received will be available for public inspection and copying in the Commission's Public Reference Room, 450 5th Street, NW, Washington, DC 20549-6009. Electronically-submitted comment letters will be posted on the Commission's Internet Web site (<http://www.sec.gov>).

FOR FURTHER INFORMATION CONTACT:

Michael J. Kigin, Associate Chief Accountant, Office of the Chief Accountant, at (202) 942-4400; or David R. Fredrickson, Assistant General Counsel, Office of the General Counsel, at (202) 942-0890.

SUPPLEMENTARY INFORMATION: On June 18, 1998, the Securities and Exchange Commission proposed for comment an amendment to Rule 102(e), 17 CFR 201.102(e). The Commission requested that comments be received by July 20, 1998.

In light of the importance of comments on this subject, the Commission believes that extending the comment period is appropriate. The extension will permit interested persons to have additional time to comment on the matters the release addresses. The Commission does not anticipate extending the comment period beyond August 20, 1998. Therefore, the comment period for Release No. 33-7546 is extended to August 20, 1998.

Dated: July 15, 1998.

By the Commission.

Margaret H. McFarland,

Deputy Secretary.

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DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 216

[Docket No. 980629162-8162-01; I.D. 093097E]

RIN 0648-AK42

Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Rocket Launches

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

ACTION: Proposed rule; request for comment and information.

SUMMARY: NMFS has received a request from the 30th Space Wing, U.S. Air Force, for a small take of marine mammals incidental to missile and rocket launches, aircraft flight test operations, and helicopter operations at Vandenberg Air Force Base, CA (Vandenberg). By this document, NMFS is proposing regulations to govern that take. In order to grant the exemption and issue the regulations, NMFS must determine that these takings will have a negligible impact on the affected species and stocks of marine mammals. NMFS invites comment on the application and the proposed regulations.

DATES: Comments and information must be postmarked no later than September 4, 1998. Comments on the collection of information requirement must be received no later than September 21, 1998.

ADDRESSES: Comments should be addressed to Michael Payne, Chief, Marine Mammal Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910-3226. A copy of the application, a final Environmental Assessment (EA), a list of references used in the preparation of this document, and other documents mentioned in this proposed rule as being available may be obtained by writing to the above address, or telephoning one of the persons listed (see **FOR FURTHER INFORMATION CONTACT**). Additional supporting technical documentation is available for viewing, by appointment, during normal business hours at either the above address, or at the Southwest Regional Office, NMFS, 501 West Ocean Blvd. Suite 4200, Long Beach, CA 90802.

Comments regarding the burden-hour estimate or any other aspect of the collection of information requirement contained in this rule should be sent to the above individual and to the Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attention: NOAA Desk Officer, Washington, D.C. 20503.

FOR FURTHER INFORMATION CONTACT: Kenneth R. Hollingshead, Office of Protected Resources, NMFS, telephone (301) 713-2055, or Irma Lagomarsino, Southwest Regional Office, NMFS, telephone (562) 980-4016.

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 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 up to 5 years if the Secretary 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, and 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."

Description of Request

On September 30, 1997, NMFS received an application for an incidental, small take exemption under section 101(a)(5)(A) of the MMPA from the 30th Space Wing, Vandenberg, to take marine mammals incidental to missile and rocket launches, aircraft flight test operations, and helicopter operations at Vandenberg.

Vandenberg is located on the south-central coast of California. The base covers approximately 98,000 acres in western Santa Barbara County. The primary missions of the Air Force at Vandenberg are to launch and track satellites in space, test and evaluate the United States' intercontinental ballistic missile systems, and support aircraft operations. As a nonmilitary facet of operations, Vandenberg is also committed to promoting commercial space launch ventures.

Comments and Responses

On November 14, 1997 (62 FR 61077), NMFS published an advance notice of proposed rulemaking on the application and invited interested persons to submit comments, information, and suggestions concerning the application, and the structure and content of regulations if the application is accepted. During the 30-day comment period on that notice, no comments were received.

Description of Activities

Vandenberg anticipates a total of 10 launches annually for Minuteman and Peacekeeper missiles from North Vandenberg and a total of 20 launches annually for space launches

(approximately 6 Delta II, 3 Taurus, 2 Atlas, 3 Titan IV, 2 Titan II, and 4 Lockheed Martin launch vehicles) primarily from South Vandenberg.

The noise from these launches may result in the unintentional disturbance of pinnipeds—considered to be unintentional, incidental takings under the MMPA. Such takings are prohibited by the MMPA unless authorized by NMFS.

The regulations proposed by this rule would replace annual incidental harassment authorizations issued to Vandenberg under section 101(a)(5)(D) of the MMPA. These authorizations have been issued previously for marine mammal takings incidental to launches by Lockheed-Martin launch vehicles (62 FR 40335, July 28, 1997), McDonnell Douglas Aerospace Delta II rocket launches (61 FR 59218, November 21, 1996), Taurus launches (62 FR 734, January 6, 1997) and Titan II and Titan IV launches (61 FR 64337, December 4, 1996). Incidental harassment authorizations for the latter three activities were reissued on December 19, 1997 (see 62 FR 67618, December 29, 1997), for an additional 1-year period or until regulations proposed in this document become effective and Letters of Authorization are issued.

These proposed regulations would also authorize takings incidental to Minuteman and Peacekeeper missile launches, aircraft flight tests and helicopter operations, none of which have had small take authorizations previously.

Aircraft test operations include the B-1 and B-2 bombers, the F-14, F-15, F-16, and F-22 fighters; and the KC-135 Stratotanker. The frequency for aircraft testing will be variable. The applicant anticipates an average of 10 flights/year, with 4 to 5 passes/flight. The maximum testing frequency could reach 3 flights/week.

Helicopter operations provide launch support, training and base support. Only about 1 percent, or 13 hours, of the 1300 hours of helicopter operations scheduled per year would occur over the Vandenberg coastline.

Description of Habitat and Marine Mammals Affected by Launch Activities

The Southern California Bight (SCB) including the Channel Islands, supports a diverse assemblage of 29 species of cetaceans (whales, dolphins and porpoises) and 6 species of pinnipeds (seals and sea lions). Harbor seals (*Phoca vitulina*), California sea lions (*Zalophus californianus*), northern elephant seals (*Mirounga angustirostris*), and northern fur seals (*Callorhinus ursinus*) breed there, with the largest

rookeries on San Miguel Island (SMI) and San Nicolas Island (SNI). Guadalupe fur seals (*Arctocephalus townsendi*) may also occasionally inhabit SCB waters. Until 1977, a small rookery of Steller sea lions (*Eumetopias jubatus*) existed on SMI. However, there has been no breeding there since 1981 and no sightings on SMI since 1984. A group of 50 Stellers were observed off the Vandenberg coast in October 1993 (Roest, 1995). Additional information on the occurrence of marine mammal species in areas potentially impacted by Vandenberg activities is provided in Barlow *et al.*, (1995 and 1997),¹ Roest, 1995, the final EA on this proposed action (U.S. Air Force, 1997), and in **Federal Register** notices on previous authorizations (60 FR 24840, May 10, 1995 (Lockheed); 60 FR 43120, August 18, 1995 (Delta II); 61 FR 50276, September 25, 1996 (Taurus); and 61 FR 64337, December 4, 1996 (Titan)). For further information, please refer to these documents, which are available upon request (see ADDRESSES).

Summary of Potential Physical Impacts

The activities under consideration for small take authorizations under these regulations create two types of noise: continuous (but short-duration) noise, due mostly to combustion effects of aircraft and launch vehicles, and impulsive noise, due to sonic boom effects. Launch operations are the major source of noise on the marine environment from Vandenberg. The operation of launch vehicle engines produces significant sound levels. Generally, four types of noise occur during a launch: (1) Combustion noise from launch vehicle chambers, (2) jet noise generated by the interaction of the exhaust jet and the atmosphere, (3) combustion noise from the post-burning of combustion products, and (4) sonic booms. Launch noise levels are highly dependent upon the type of first-stage booster and the fuel used to propel the vehicle. Therefore, there is a great similarity in launch noise production within each size class.

Sonic booms are impulse noises, as opposed to continuous (but short-duration) noise such as that produced by aircraft and rocket launches. There is a significant potential for sonic booms (i.e., overpressures greater than 0.5 pound/sq.ft (psf)) to occur during launches of low earth orbit payloads. These sonic booms can vary from inconsequential to severe, depending on the physical aspects of the launch

vehicle, the trajectory of the launch, and the weather conditions at the time of the launch. The initial shock wave propagates along a path that grazes the earth's surface due to the angle of the vehicle and the refraction of the lower atmosphere. As the launch vehicle pitches over, the direction of propagation of the shock wave becomes more perpendicular to the earth's surface. These direct and grazing shock waves can intersect to create a narrowly focused sonic boom, about 1 mile of intense focus, followed by a larger region of multiple sonic booms.

Aircraft and helicopter activities also produce noise in the coastal environment. Jet aircraft produce significant, subsonic noise with widely varying sound levels depending upon aircraft type, phase of flight, and other factors. Blade-rate tones account for high frequency squealing in jet sounds while the low-frequency roar is the jet mixing noise from engine exhaust (Richardson *et al.* (1995). The high frequency tones are rapidly absorbed in the atmosphere (>4 dB/kilometer (km)). To provide an example of noise levels for a typical aircraft, an F-16 aircraft at intermediate power and 300 ft (96.4 m) above the ground is projected to have a peak noise level of 103 dBA re 20 μ Pa-m, lasting from 1 to 3 seconds (U.S. Air Force, 1986).²

The sounds from helicopters contain many tones related to rotor or propeller blade rate, with most energy at frequencies below 500 Hz. Measurements of a Bell 212 helicopter at an altitude of 500 ft (152 m) indicated a peak, received level at the surface of 109 dB re 1 μ Pa-m. Duration of noise on the surface may last up to 4 minutes, but less than 38 seconds (sec.) at 9.8 ft (3 m) depth, and 11 sec. at 60 ft (18 m) (Greene, 1985a; Richardson *et al.*, 1995).

One issue for discussion on impacts to marine mammals is the extent to which noise penetrates the ocean surface and the sound pressure levels (SPLs) at depths which marine

¹ Reference citations can be found either in the EA or are available upon request from NMFS (see ADDRESSES).

² Airborne noise measurements are usually expressed relative to a reference pressure of 20 μ Pa, which is 26 dB above the usual underwater sound pressure reference of 1 μ Pa. Also, they are often expressed as broadband A-weighted sound levels (dBA). A-weighting refers to frequency-dependent weighting factors applied to sound in accordance with the sensitivity of the human ear to different frequencies. While it is unknown whether the marine mammal ear responds similar to the human ear, a recent study by C. Malme (pers. commun. to NMFS, March 5, 1998) found that for predicting effects, A-weighting is better than flat-weighting because pinniped highest hearing sensitivity is at higher frequencies than that of humans. As a result, whenever possible, NMFS provides both A-weighted and unweighted sound pressure levels; when both levels are not provided, it is presumed to represent the unweighted level.

mammals may inhabit. Jet aircraft from Vandenberg remain subsonic when within the coastal zone (U.S. Air Force, 1997). Therefore, it is not necessary to consider sonic boom noise penetration into the water column from aircraft covered by this proposed authorization.

The amount of subsonic aircraft noise entering the water column will depend primarily on aircraft altitude and limited by Snell's Law (e.g., at angles greater than 13° from the vertical much of the incident sound is reflected and does not penetrate into the water) (Richardson *et al.*, 1995). However, some airborne noise will penetrate water at angles >13° from the vertical when rough seas provide water surfaces at suitable angles (Lubard and Hurdle, 1976). In general, the peak, received level in the water, as an aircraft passes directly overhead, will decrease with increasing altitude and received depth (Richardson *et al.*, 1995). Duration of audibility, while significantly less than the duration in air, tends to increase with increasing aircraft altitude and with decreasing receiver depths. When an aircraft is not directly overhead, aircraft noises can be stronger at mid-water than at shallow depths (Richardson *et al.*, 1995).

Helicopters often radiate more sound forward than backward. However, because the acoustic wavelengths of the low-frequency sounds that dominate helicopter noise are much longer than the typical ocean wave heights, penetration at angles greater than 13° from vertical are expected to be negligible (see Richardson *et al.*, 1995).

Because a rocket's angle of trajectory at lift-off to the water surface is greater than 13 degrees, launch noises are not normally expected to transit the air-water interface. While rough seas may allow some penetration due to angle between the wave face and launch noise, surf and wind noise in the nearshore zone would be expected to limit in-water transmission and audibility.

A sonic boom will project ahead of the vehicle as it travels down range. This may produce a "carpet" boom, which, because of its angle of trajectory, is not expected to penetrate the ocean surface. While most of this sonic boom energy will be reflected off the water surface, some noise may penetrate it. Analyses by Cook and Goforth (1970) indicate that the "N" wave of a sonic boom is rapidly smoothed and attenuated with depth. They found that, in moderate seas and heavy ship traffic, sonic boom pressures can be expected to exceed the ambient noise pressures momentarily by up to 50 dB, from the surface to depths of a few hundred feet,

between frequencies of 0.5 Hz and a few hundred Hz.

When the vehicle changes its launch trajectory offshore, the surface boom will meet the accelerated boom, creating a "focused" sonic boom. Sonic booms may become focused within a narrow band under the flight path, resulting in sound levels of exceptional amplitude within a very narrow footprint. This location will always be well offshore but may intersect with the Northern Channel Islands (NCI). Theoretical calculations have suggested that, within the narrow footprint of a focused sonic boom, sound levels as high as 147 dB (U.S. Air Force, 1990, 1996) to 154 dB (U.S. Air Force, 1988) could be received.

Marine Mammal Impact Assessment

Noise disturbance from operations on Vandenberg may cause negligible, short-term impacts to pinnipeds (seals and sea lions) hauled out on the Vandenberg coastline, and, if loud enough due to the proximity of the seals to the launch pad, it may result in a temporary threshold shift (TTS) in their hearing. Along the Vandenberg coast, launch noises are expected to impact principally harbor seals as other pinniped species (e.g., California sea lions and northern elephant seals) are known to haulout at these sites only infrequently and in significantly smaller numbers. The principal form of impacts would be the infrequent (approximately 30 launches/year; 50 aircraft flights/year) and unintentional incidental harassment resulting from noise generated by aircraft, helicopter, missile, and rocket launches and by the visual sighting of low-flying aircraft. Launch noises and sonic booms can be expected to cause a startle response and flight to water for those harbor seals, California sea lions and other pinnipeds that are hauled out on the coastline of Vandenberg and on the NCI. Launch noise is expected to occur over the coastal habitats in the vicinity of the Vandenberg launch sites during every launch, while sonic booms may be heard on NCI, principally SMI and Santa Rosa Island (SRI), only during certain launches of certain rocket types.

Titan II and Titan IV

Space Launch Complex (SLC) 4 is utilized for launching Titan II (SLC-4W) and Titan IV (SLC-4E) rockets. The Titan II space launch vehicle is a two-staged, modified Intercontinental Ballistic Missile redesigned to carry small payloads of up to 5,600 lb (2,267 kg). The Titan IV is a larger vehicle, carrying payloads similar to those carried by the Space Shuttle (U.S. Air Force 1996). Although loud, the duration of noise capable of affecting

marine mammals generated by each Titan launch is brief. Although some low frequency rumbling noise will continue for several minutes, the noise event at the Rocky Pt. harbor seal haul-out will be concluded (Stewart *et al.*, 1992, 1993a, 1993b), within approximately 2 minutes following ignition and liftoff, by which time a Titan IV will be 28.6 miles (46 km) from SLC-4, over the open ocean and out of hearing range of marine mammals on Vandenberg (U.S. Air Force, 1996). While noise levels around the launch pad, during the launch, can reach a level of about 170 dB (a level that can cause hearing damage to humans) (U.S. Air Force, 1988), levels at the nearest seal rookery are significantly less.

Time-lapse photographic monitoring (Jehl and Cooper, 1982) shows that, in response to a specific stimulus, large numbers of pinnipeds may move suddenly from the shoreline to the water. Visual stimuli, such as humans and low-flying aircraft, are much more likely to elicit this response than strictly auditory stimuli, such as boat noise or sonic booms. Observations indicate that it is rare for mass movement to take place in a panic, and no resulting pup or adult mortality has been observed under these circumstances. Stewart (1981, 1982) exposed breeding California sea lions and northern elephant seals on SNI to loud implosive noises created by a carbide pest control cannon. SPLs varied from 125.7 to 146.9 dB. While behavioral responses of each species varied by sex, age, and season, Stewart found that habitat use, population growth, and pup survival of both species appeared unaffected by periodic exposure to the noise.

As part of previous small take authorizations for Titan IV launches at SLC-4, the U.S. Air Force has monitored the effects of launch noises on harbor seals hauled out at Rocky Pt. (4.8 mi (7.7 km) south of SLC-4). For six monitored launches of Titan IVs, the sound exposure level ranged from 141.2 dB to 146.8 dB (96.2–101.8 dBA) (Stewart and Francine, 1991, 1992; Stewart *et al.* 1993a, 1993b, 1996; Thorson *et al.*, 1998). During the 1992 and 1993 Titan IV launches, all or almost all, harbor seals that were ashore at the time fled into the water (23 of 28 in 1992, 41 of 41 in 1993) in response to the noise. After a launch in 1993, about 75 percent of those seals returned ashore later that day, most within 90 minutes of the disturbance (Stewart *et al.*, 1993b). There were no apparent mortalities following any of the six monitored launches, and the haulout patterns were reported similar to those prior to the launches.

Therefore, because of the loud noise levels of the Titan IV, all harbor seals hauled out along the Vandenberg coastline are expected to leave the beach as a result of Titan IV launchings. While noise from a Titan IV launch can be heard on the NCI, monitoring on those islands indicates that pinniped response will be limited to no more than a heads-up alert. This alertness, however, makes the animals more sensitive for movement to the sea should noise from a sonic boom impact the haulout site.

Launch noise from a Titan II is expected to be significantly less than from the larger Titan IV. Noise measurements and observations on harbor seals at Harbor Seal Beach, Rocky Pt. were conducted during the launch of a Titan II on April 4, 1997. A sound exposure level measurement of 116.7 dB was made with a peak level of 83.2 dB at 17 Hz. The A-weighted sound exposure level (SEL) was measured at 88.5 dB, with the loudest sound occurring at 76 Hz (50 dB). The maximum number of harbor seals hauled out ranged from 164 to 278 prior to the launch, with most peaks occurring in the afternoon (Thorson and Francine, 1997). Thirty-three of the 37 seals ashore at the time of the launch entered the water during the event; most returned ashore within 30 minutes post-launch. Within 8 to 10 days, seal numbers had increased to 128 (Thorson and Francine, 1997).

Because of high ambient noise along the coastline (ambient noise level expected to range between 56 and 96 dBA (U.S. Air Force, 1995a)), rapid attenuation of launch noise, and because almost all sounds from the launch should be reflected off, and not penetrate, the water surface, launch noises are not expected to impact any marine mammals in nearshore waters of Vandenberg, although pinnipeds at the water surface in the vicinity of the launch site may alert to the noise and other marine mammal species at the water surface may hear the launch noises.

Sonic booms resulting from launches of the Titan II and IV will vary with the vehicle trajectory, weather conditions, and the specific ground location. Depending upon the intensity and location of a sonic boom, pinnipeds on the NCI could exhibit a simple alert (head-up) response, or startle and stampede into the water. Two primary concerns involve the possibility of a stampede during which pups may be trampled or separated from their mothers and the potential effects of loud noises on the pinniped's hearing. A third concern involves a possible physiological stress to the animals,

resulting in unsuccessful breeding and other anomalies in behavior.

Theoretical calculations suggest that marine mammal habitat within the narrow footprint of a Titan IV focused sonic boom could experience sound levels as high as 147 dB (U.S. Air Force, 1990, 1996) to 154 dB (U.S. Air Force, 1988). Chappell (1980) calculated that a sonic boom would need to have a peak over-pressure in the range of 138 to 169 dB to cause TTS in marine mammals, with TTS lasting a few minutes at most. Humans have been exposed to impulse noise similar in magnitude to the sonic booms expected from Titan IVs with no permanent hearing effects and with only temporarily reduced hearing sensitivity.

Monitoring the effects of noise generated from Titan IV launches on SMI pinnipeds in 1991, Stewart and Francine (1992), demonstrated that noise levels from a focused sonic boom of 1.34 psf (133 dB, 111.7 dBA) caused an alert (head up) response by 25 California sea lions, but no response from other pinniped species present (including harbor seals and elephant seals). There was no seaward movement as a result of this nighttime launch, and all animals returned to a resting position within 30 seconds. In 1993, an explosion of a Titan IV created a sonic boom-like pressure wave that resulted in an alert response, but no movement toward the sea. Additional popping and rumbling noises that followed the initial over pressure caused approximately 45 percent of the California sea lions (approximately 23,400, including 14 to 15 thousand 1-month old pups, were hauled out on SMI during the launch) and 2 percent of the northern fur seals to enter the surf zone. Although approximately 15 percent of the sea lion pups were temporarily abandoned when their mothers fled into the surf, no injuries or mortalities were observed. Most animals were returning to shore within 2 hours of the disturbance (Stewart *et al.*, 1993b) and haul-out patterns after launchings appeared normal.

In 1995, a Titan IV rocket produced a sonic boom that measured 146.6 dB (8.9 psf) on SMI (Stewart *et al.*, 1996). While seals exposed to this sonic boom were not tested for hearing effects, the authors reasoned that those animals most likely experienced hearing threshold shifts. Most recently, Thorson *et al.* (1998) measured the SEL for the Titan IV A-18 sonic boom at 121 dB (86.8 dBA) on the western side of SCI, where the largest boom was predicted to impact. This low amplitude (1.1 psf) sonic boom did not result in startling seals and sea lions.

In 1996, Stewart (1996) tested the auditory brainstem response (ABR)³ of rehabilitated, stranded, harbor seals (6 pups), northern elephant seals (3 pups), and California sea lions (5 juvenile), exposed them to a simulated sonic boom, then immediately retested them to determine if a TTS injury occurred. In these trials, Stewart demonstrated TTS in California sea lions at over pressures between 3 and 6.9 psf. A 6.9 psf sonic boom produced a TTS that lasted approximately 3 hours. In harbor seals, sonic booms with over pressures between 4.2 and 7.2 psf produced TTS; a TTS produced by a 6.2-psf sonic boom lasted approximately 24 minutes, whereas a 7.2-psf sonic boom induced a TTS that lasted approximately 90 minutes. Northern elephant seals suffered TTS, lasting approximately 20 minutes, when exposed to sonic booms of 2.3 psf (135 dB) and greater. Thorson *et al.* 1998 found no discernible TTS during on-site ABR testing on harbor seals exposed to launch noise from a Titan IV on October 23, 1997.

Over water, almost all sonic boom sounds will be reflected off the water's surface. Therefore, except inside an approximate 4 mile by 1,000-ft (7 km by 305 m) zone of a focused sonic boom, only those individual marine mammals within this zone that are at the water surface at the time of focusing will experience energy from a sonic boom. Although Titan IV-generated sonic booms are not likely to cause permanent hearing damage to marine mammals in or out of the water, they may cause minor reduction in hearing sensitivity in those few species with hearing capabilities in the low frequencies found in sonic booms. This effect is expected to be temporary and will not affect the survival of individuals or adversely affect the species' populations in California waters.

Outside the zone of focused energy, cetaceans and pinnipeds in the water should be unaffected by the sonic booms, although, depending upon location and ambient noise levels, some pinnipeds may be able to hear the sonic boom. Although rough seas may provide some surfaces at the proper angle for sound to penetrate the water surface (Richardson *et al.*, 1991), sound entering a water surface at an angle greater than 13 degrees from the vertical has been shown to be largely deflected at the surface, with very little sound entering the water (Chappell, 1980; Richardson *et al.*, 1991, 1995).

³ Evoked ABRs are electrical potentials that are generated by the brainstem when the ear is stimulated by sound (Stewart 1996).

With only a remote likelihood that a cetacean will be almost directly under the line of flight of a Titan II and IV at the instant the vehicle changes its launch trajectory, NMFS believes that sonic booms will not result in the harassment of cetacean populations in offshore waters of the SCB.

Most long-term physiological effects, such as those on reproduction, metabolism and general health, or on the animals' resistance to disease, are believed to be caused by much greater cumulative sound exposures (intense continuous noise) than those expected from space vehicle sonic booms (infrequent, loud, and short-duration noise), which have less potential for affecting physiology (U.S. Air Force, 1990; NMFS, 1990).

NMFS believes therefore, that some TTS would be likely following exceptionally loud, focused, booms created by launches flying directly over the NCI, but this TTS should last only a short time (minutes to hours). Also, although the startle effect of the sonic booms might result in some minor physiological stress, the frequency of the booms would be low compared to the frequency of naturally induced startle events. Moreover, there should be no adverse effect on pinniped survival since no significant increase in stress-related pathology is anticipated, nor is any disruption of the reproductive cycle expected.

Lockheed Martin Athena Launch Vehicles

At SLC-6, Athena launches would place commercial payloads into low earth orbit using Lockheed Martin's family of vehicles (Athena-1, Athena-2 and Athena-3). Under typical conditions, the launch noise associated with the Athena would be approximately 127 dB (101 dBA) at the harbor seal haul-out areas, which are about 1.5 mi (2.4 km) to the south and southwest of SLC-6 (U.S. Air Force, pers. comm. April 28, 1998). The seaward aspects of the cliffs throughout much of the coastal area are expected to buffer the haul-out areas from launch noises during the earliest stages of Athena launches (U.S. Air Force, 1995). While this SEL is significantly less than levels for the Titan IV at similar distances (approximately 142 dB (121 dBA) for Titan IV), it is still sufficient to cause harbor seals to leave the beach at Point Arguello, Rocky Pt, and Boathouse Flats.

The maximum magnitude of sonic booms from launches of the Athena-1 (5.0 psf), Athena-2 (3.0 psf), and Athena-3 (3.0 psf) will be less than those measured or predicted for Titan

IV. Depending upon the intensity and location of a sonic boom, pinnipeds on SMI or SRI may exhibit an alert response or stampede into the water. However, while it is highly probable that sonic booms from Athenas would occur over the Channel Islands, maximum overpressures of these booms are estimated to be less than 1.0 psf over the northern part of SMI (U.S. Air Force, 1995). A sonic boom with an overpressure of 1 psf (127 dB, 60 dBA) is not considered significant.

The sonic booms resulting from launches of the Athena will vary with the type of vehicle and with the specific ground location. For example, the sonic boom from Athena-3 (the largest of the Athena rockets) is not expected to intersect any portion of the NCI, but instead will focus on the open water southwest of the Islands. Also, while it is predicted that launches of the Athena-1 and Athena-2 will produce sonic booms over portions of the Channel Islands, the maximum overall SPL is not expected to exceed 110 dB (69 dBA) (U.S. Air Force, 1995). These sonic boom levels are likely to be indistinguishable from background noises caused by wind and surf (U.S. Air Force, 1995).

McDonnell-Douglas Delta II

Based upon SEL measurements recorded in November 1995, the launch noise associated with the Delta II launch at SLC-2W is estimated to be approximately 138.8 dB (125.7 dBA) at the nearest harbor seal haulout site at Purisima Pt (2,200 ft (670.6 m) from the launch site) (U.S. Air Force, 1995b). Launch noises from the Delta II are expected to impact mostly harbor seals as California sea lions and northern elephant seals are known to haul-out at these sites only infrequently and in smaller numbers. Therefore, it can be predicted that most, if not all, pinnipeds onshore near SLC-2W will leave the shore as a result of Delta II launchings. Harbor seals hauled out at Point Sal (10.5 mi (16.9 km)) and Rocky Pt 13.5 mi (21.7 km)) are expected to alert to the launch noise, and some, if not all, are expected to flee to the water.

While it is highly probable that a sonic boom from the Delta II would occur over SMI, maximum overpressures of these sonic booms are estimated to be 1.0 psf (U.S. Air Force, 1995c). A sonic boom with an overpressure of 1.0 psf or less is not considered significant. Also, the maximum overall sound pressure level is not expected to exceed 78 dBA (112 dB) (U.S. Air Force, 1995c). A sonic boom of this magnitude is likely to be either indistinguishable or barely

distinguishable from background noises caused by wind, surf (U.S. Air Force, 1995a) and onshore marine mammals.

Taurus

Based upon measurements made on March 13, 1994, of a Taurus rocket launch from SLC-576E (Stewart *et al.*, 1994), the SEL recorded at Purisima Pt (2.24 km (1.4 mi) from the launch pad) was 127.4 dB (108.1 dBA). Twenty of the 23 harbor seals that were hauled out at this location before the launch fled immediately into the water within a few seconds after launch. The unweighted SEL of noise recorded at Rocky Pt was 103.9 dB (80.0 dBA) (130-second duration; 20.4 km (12.7 mi) from the launch pad). That noise included launch noise and possibly a sonic boom below 50 Hz. Twenty of 74 harbor seals that were monitored at Rocky Point fled into the water within several seconds of the sound arriving there. However, none of the four young pups that were ashore left the beach nor were they separated from their mothers. A comparison of the reactions of harbor seals to sound at the two study sites indicates that the intensity and duration of reactions of harbor seals to the type of noise associated with the Taurus was directly related to the intensity of the noise to which they were exposed (Stewart *et al.*, 1994). Substantially more seals reacted to the launch noise at Purisima Pt than at Rocky Pt. Furthermore, seals at Purisima Pt reacted much more energetically and remained in the water substantially longer than did seals at Rocky Pt.

Although monitoring was apparently not conducted at the Spur Road haulout (approximately 0.5 mi (804 m) from SLC-576E) in 1994, based upon measurements for Delta II (Aerospace Corporation, 1996) and comparing these results with Taurus (Stewart *et al.*, 1994), an SEL can be estimated for Spur Road to be approximately 129 dB (115 dBA). If any harbor seals are ashore at the time of a launch at this small haulout, all are expected to immediately leave the shore for the water.

Rocket engine noise over NCI from the just-launched Taurus traveling at supersonic speeds should not affect pinnipeds hauled out on these islands. The Taurus flight paths will be to the west-southwest away from the California coast. Sonic boom noise developed as a result of these launches is not expected to reach the Channel Islands. Low intensity rumbling noise may reach the Channel Islands with the effect ranging from a simple alert response to a startle response, which, while unlikely, could result in some movement into the water. The initial

Taurus launch from SLC-576E did not cause a sonic boom over SMI, and there was no response by pinniped species on SMI (Orbital Sciences Corporation, 1996) from launch noise.

Atlas

Atlas II space vehicles, made by Lockheed-Martin, are planned to be launched from SLC-3E. This launch pad is located 6 mi (9.6 km) from Rocky Pt, 8.5 mi (13.7 km) from Purisima Pt, and 19 mi (30.6 km) from Point Sal. Predicted unweighted SELs for Rocky Pt and Purisima Pt are 96.5 dB and 90.4 dB, respectively. SELs of this intensity, if accurate, may not result in more than an alert posture by those harbor seals ashore at the time of launch; if low, then some or all of these seals may leave the shore for the water.

Minuteman and Peacekeeper Missiles

Minuteman missiles produced an unweighted 118 dB (99 dBA) at Point Sal (2.7 mi (4.3 km) distant) and 104 dB (80 dBA) at Purisima Pt. (7 to 10 mi (11.3 to 16.1 km) distant). While no observations are known to have been made to date, SELs of this level are considered sufficient to cause a startle effect and to result in a general movement by harbor seals into the water.

Peacekeeper missiles are initially launched using air pressure; the engine ignites at 300 ft (91.4 m) altitude. SELs can be predicted for Peacekeeper missile launches from North Vandenberg by comparing them with SELs for the Athena-1 rocket. LF-02 is approximately 2 mi (3.2 km) from Lions Head and 6.8 mi (10.9 km) from Point Sal. Using this comparison, NMFS estimates that Peacekeeper missiles would produce an unweighted SEL of 114 dB (85 dBA) at Point Sal (2.7 mi (4.3 km) distant) and 105 dB (73 dBA) at Purisima Pt. (7-10 mi (11.3-16.1 km) distant). SELs of this level are likely sufficient to cause a startle effect and to result in movement by harbor seals into the water.

Aircraft and Helicopters

Pinnipeds hauled out on land react to aircraft and helicopter sounds and/or sight by becoming alert and often by rushing into the water. They tend to react most strongly if an aircraft is flying low, passes nearly overhead, and/or causes abrupt changes in sounds. Responsiveness can vary according to the stage of the breeding cycle. In general, pinnipeds hauled-out for pupping or molting are the most responsive to aircraft (Tetra Tech, 1997). While flight to the water by a significant portion of the hauled out pinnipeds has

the potential to increase pup mortality due to crushing or to increase rates of pup abandonment, direct mortality has not been observed (Richardson *et al.*, 1995). Specific examples of pinniped reaction to aircraft noise are provided in the EA.

For range safety and security prior to a launch, helicopter flights are flown at 500 ft (152.4 m) altitude except over recognized pinniped haulouts and rookeries where the helicopter is required to ascend to 1,000 ft (305 m). Pre-launch security at Vandenberg requires that helicopters scan the area in the path of the launch. These helicopter flights occasionally pass close by harbor seal haulouts. One such flight resulted in an average sound exposure level of 79.1 dBA (Thorson *et al.*, 1988). These flights may result in an unintentional, incidental harassment of pinnipeds and, rarely, cetaceans. One hypothesis is that these security patrols startle harbor seals and result in fewer seals being observed ashore (and thereby counted as being "taken by harassment") at the time of the launch.

Cumulative Impacts

Cumulative impacts that will occur to harbor seals, California sea lions, northern elephant seals, and northern fur seals have been discussed in the EA on this issue (U.S. Air Force, 1997), and need not be discussed further. However, the MMPA requires NMFS to determine that the total of such taking during the 5-year (or less) period will have a negligible impact on the species being taken. Using the information provided above, NMFS estimates that each rookery/haulout site along the Vandenberg coastline will be impacted by sufficient noise at each launch to cause harbor seals to leave the rocks fewer than 30 times annually due to missile and rocket launches and associated helicopter safety patrols and 10 times annually due to aircraft operations. On the NCI, pinnipeds may potentially leave the beach only as a result of a sonic boom from Titan IV and Athena-3 launch passes over or in the vicinity of a haulout on one of the Islands. Such an event is unlikely to occur more than 3 to 5 times annually.

Long term effects, such as stress and emigration, due to chronic exposure to noise are not expected since all noise events will be transitory and limited in number and duration.

Proposed Mitigation

One mitigation measure of long-standing is the requirement that no vehicles launched from Vandenberg are allowed direct overflight of SRI, SCI, or Anacapa Island. Therefore, nominal

flight azimuths from SLC-4 for example, must be west of SRI.

All aircraft and helicopter flight paths will maintain a minimum distance of 1,000 ft (305 m) from recognized seal haulouts and rookeries (e.g., Point Sal, Purisima Pt, Rocky Pt), except in emergencies or for real-time security incidents. Emergencies include search-and-rescue and fire-fighting, both of which may require approaching pinniped rookeries closer than 1,000 ft (305 m).

For missile and rocket launches, unless constrained by other factors including, but not limited to, human safety, national security, or launch trajectories, efforts to ensure minimum negligible impacts of launches on harbor seals and other pinnipeds, NMFS proposes to require the Air Force to avoid, whenever possible, launches during the harbor seal pupping season of February through May and Titan IV launches which predict a sonic boom on NCI during harbor seal, elephant seal, and California sea lion pupping seasons.

Additional mitigation measures would be developed, if necessary, cooperatively between NMFS and the Air Force based on the degree of impact documented during monitoring activities following specific launches, especially for Titan IV rockets. Additional mitigation measures would be contained in annual Letters of Authorization (LOAs).

Research

Between 1991 and 1996, under a U.S. Air Force contract, research was conducted on the behavioral, auditory and population responses of pinnipeds on the NCI to loud and focused sonic booms and to launch noise from Titan IV rockets launched from Vandenberg. The results of this research are provided in Stewart (1996).

Under funding from the USAF and 30th Space Wing management, new research initiatives on the impacts of aerial noise on marine mammals have been undertaken. One study is to address the cumulative effects of rocket launch noise and sonic booms on pinnipeds at Vandenberg and on NCI. Studies include the following: (1) Hearing effects on seals from launch noise and the subsequent launch-generated sonic boom, (2) movements and haulout patterns of individual seals over the course of many rocket launches, (3) changes in seal demographic parameters over the 5-year study, and (4) foraging and diving behavior of seals exposed to launch noise. A scientific research permit has been issued for this research (see 62 FR 36049, July 3, 1997). A copy of the

research plan is available upon request (see ADDRESSES).

There is some speculation that exposure to loud noise could cause other physiological effects in pinnipeds, including spontaneous abortion, disruption of effective female-neonate bonding, other reproductive dysfunction, detrimental health effects, and/or increased vulnerability to disease (Chappell *et al.*, 1980; Stewart *et al.*, 1996). While there has been little study of noise-induced stress in marine mammals (Richardson *et al.*, 1995), research initiatives have been identified (U.S. Air Force, 1996) and may be carried out in future years of this authorization.

Proposed Monitoring Measures

During the 5-year duration of this proposed authorization, impacts of missile and space launches on marine mammals would be monitored to ensure that the taking is having no more than a negligible impact on California pinniped stocks. For each launch, monitoring would occur at the pinniped rookery on Vandenberg most likely to be impacted by the launch. For most launches, this would be either Point Sal, Purisima Pt or Rocky Pt. Launch monitoring, as detailed in LOAs, would include the following: (1) At least one biologically trained on-site observer designated to record the effects of launches on harbor seals and other pinnipeds, (2) observations on harbor seal activity in the vicinity of the rookery nearest the launch platform or, in the absence of pinnipeds at that location, at another nearby haulout, for at least 72 hours prior to any planned launch and continue for a period of time not less than 48 hours subsequent to launching, (3) monitoring of haulout sites on NCI would be performed if it is determined that a sonic boom could impact those areas (this determination will be made in coordination with NMFS), (4) investigation of potential for spontaneous abortion, disruption of effective female-neonate bonding and other reproductive dysfunction, and (5) observations on Vandenberg and on NCI, if indicated, would be supplemented with both video-recording of mother-pup seal responses for daylight launches during the pupping season, and with acoustic measurements of those launch vehicles not having previous SPL measurements.

Proposed Reporting Requirement

A report would have to be submitted to NMFS within 90 days after each launch. This report will have to contain the following information:

(1) Date(s) and time(s) of each launch, (2) date(s), location(s), and preliminary findings of any research activities related to monitoring the effects on launch noise and sonic booms on marine mammal populations, and (3) results of the monitoring programs, including, but not necessarily limited to (a) numbers of pinnipeds present on the haulout prior to commencement of the launch, (b) numbers of pinnipeds that may have been harassed as noted by the number of pinnipeds estimated to have entered the water as a result of launch noise, (c) the length of time(s) pinnipeds remained off the haulout or rookery, (d) the numbers of pinniped adults or pups that may have been injured or killed as a result of the launch, and (6) any behavioral modifications by pinnipeds that likely were the result of launch noise or the sonic boom.

An annual report would have to be submitted that describes in a summary form any incidental takings not reported under the preceding paragraph. For example, this report would be expected to describe the aircraft test program and helicopter operations and any assessments made on their impacts to haul-out pinnipeds.

A final report would have to be submitted at least 180 days prior to expiration of these regulations. This report would summarize the findings made in all previous reports and assess both the impacts at each of the major rookeries and the cumulative impact on pinnipeds and on other marine mammals from Vandenberg activities.

Preliminary Conclusions

The short-term impact of aircraft testing and helicopter operations at Vandenberg, the launching of missiles from North Vandenberg, and the launching of rockets from North and South Vandenberg would be expected to result, at worst, in a temporary reduction in utilization of the haulout as seals or sea lions leave the beach for the safety of the water. Launchings would not be expected to result in any reduction in the number of pinnipeds, and they are expected to continue to reoccupy the same area shortly after each launch. Additionally, there would not be any impact on the habitat itself. Based upon studies conducted for previous space vehicle launches at Vandenberg, significant long-term impacts on pinnipeds at Vandenberg and the NCI are unlikely.

National Environmental Policy Act (NEPA)

The U.S. Air Force prepared an EA and issued a Finding of No Significant Impact (FONSI), as part of its request for

a small take authorization. This EA contains information incorporated by reference in the application that is necessary for determining whether the activities proposed for receiving small take authorizations are having a negligible impact on affected marine mammal stocks. As a result, NMFS will accept comment on this EA, and, based upon the comments received, will (1) adopt the U.S. Air Force EA as its own and sign a new FONSI statement, (2) amend the U.S. Air Force EA to incorporate relevant comments, suggestions and information and sign a new FONSI statement, or (3) based upon comments received, prepare and release for public comment a Draft Environmental Impact Statement.

Endangered Species Act (ESA)

The Department of the Air Force consulted with NMFS, as required by section 7 of the ESA, on whether launches of Titan II and IV at SLC-4 would jeopardize the continued existence of species listed as threatened or endangered. NMFS issued a section 7 biological opinion on this activity to the Air Force on October 31, 1988, concluding that launchings of the Titan IV were not likely to jeopardize the continued existence of the Guadalupe fur seal. The Air Force reinitiated consultation with NMFS after the Steller sea lion was added to the list of threatened and endangered species (55 FR 49204, November 26, 1990). However, since northern sea lions had not been sighted on the Channel Islands between 1984 and the time of the consultation, it was determined that these launchings were not likely to affect Steller sea lions. Additionally, on September 18, 1991, NMFS concluded that the issuance of a small take authorization to the Air Force to incidentally take marine mammals during Titan IV launches was not likely to jeopardize the continued existence of northern sea lions or Guadalupe fur seals. Because launches of rockets and missiles other than Titan IV are unlikely to produce sonic booms that will impact the NCI, and because listed marine mammals are not expected to haul-out either on the Vandenberg coast or on the NCI during the 5-year period for this proposed authorization, the issuance of these regulations are unlikely to adversely affect listed marine mammals. Additionally, incidental take authorizations for either of these two species under either the MMPA or the ESA are not warranted.

Classification

This action has been determined to be not significant for purposes of E.O. 12866.

The Assistant General Counsel for Legislation and Regulation of the Department of Commerce certified to the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities as described in the Regulatory Flexibility Act. If implemented, this rule will affect only the U.S. Air Force, large defense companies, and an undetermined number of contractors providing services related to the launches, including the monitoring of launch impacts on marine mammals. Some of the affected contractors may be small businesses. The economic impact on these small businesses is dependent upon the award of contracts for such services. The economic impact cannot be determined with certainty, but will be beneficial have no effect, directly or indirectly, on small businesses. As such, a regulatory flexibility analysis is not required.

This proposed rule contains collection-of-information requirements subject to the provisions of the Paperwork Reduction Act (PRA). This collection has been approved by OMB under OMB control number 0648-0151. Notwithstanding any other provision of law, no person is required to respond to nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the PRA unless that collection of information displays a currently valid OMB control number.

The reporting burden for this collection is estimated to be approximately 3 hours per response for requesting an authorization (as described in 50 CFR 216.104) and 40 hours per response for submitting reports, including the time for gathering and maintaining the data needed and completing and reviewing the collection of information. Comments are invited on (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

Please send any comments to NMFS and OMB (see ADDRESSES).

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. Because this document contains only a summary of the information provided in the documents available to the public (see ADDRESSES), commenters are requested to review these documents before submitting comments.

List of Subjects in 50 CFR Part 216

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

Dated: July 15, 1998.

David L. Evans,

Deputy Assistant Administrator for Fisheries, National Marine Fisheries Service.

For reasons set forth in the preamble, 50 CFR part 216 is proposed to be amended as follows:

PART 216—REGULATIONS GOVERNING THE TAKING AND IMPORTING OF MARINE MAMMALS

1. The authority citation for part 216 continues to read as follows:

Authority: 16 U.S.C. 1361 *et seq.*, unless otherwise noted.

2. Subpart K is added to part 216 to read as follows:

Subpart K—Taking of Marine Mammals Incidental to Space Vehicle and Test Flight Activities

Sec.

- 216.120 Specified activity and specified geographical region.
- 216.121 Effective dates.
- 216.122 Permissible methods of taking.
- 216.123 Prohibitions.
- 216.124 Mitigation.
- 216.125 Requirements for monitoring and reporting.
- 216.126 Applications for Letters of Authorization.
- 216.127 Renewal of Letters of Authorization.
- 216.128 Modifications of Letters of Authorization.
- 216.129 [Reserved]

Subpart K—Taking of Marine Mammals Incidental to Space Vehicle and Test Flight Activities

§ 216.120 Specified activity and specified geographical region.

(a) This subpart applies only to the incidental taking of those marine mammals specified in paragraph (b) of this section by U.S. citizens engaged in:

(1) Launching a total of either 10 Minuteman and Peacekeeper missiles annually or 50 missiles over the 5-year authorization period from Vandenberg Air Force Base,

(2) Launching a total of either 20 rockets annually or 100 rockets over the 5-year authorization period from Vandenberg Air Force Base,

(3) Aircraft flight test operations, and

(4) Helicopter operations from Vandenberg Air Force Base.

(b) The incidental take of marine mammals on Vandenberg Air Force Base and in waters off southern California, under the activity identified in paragraph (a) of this section, is limited to the following species: Harbor seals (*Phoca vitulina*), California sea lions (*Zalophus californianus*), northern elephant seals (*Mirounga angustirostris*), northern fur seals (*Callorhinus ursinus*), Guadalupe fur seals (*Arctocephalus townsendi*), and Steller sea lions (*Eumetopias jubatus*).

§ 216.121 Effective dates.

This subpart is effective from October 1, 1998, through September 30, 2003.

§ 216.122 Permissible methods of taking.

(a) Under Letters of Authorization issued pursuant to § 216.106 of this chapter, the 30th Space Wing, U.S. Air Force, its contractors, and clients, may incidentally, but not intentionally, take marine mammals by harassment, within the area described in § 216.120 provided all terms, conditions, and requirements of these regulations and such Letter(s) of Authorization are complied with.

(b) [Reserved]

§ 216.123 Prohibitions.

Notwithstanding takings authorized by § 216.120 and by a Letter of Authorization issued under § 216.106, no person in connection with the activities described in § 216.120 shall:

(a) Take any marine mammal not specified in § 216.120(b);

(b) Take any marine mammal specified in § 216.120(b) other than by incidental, unintentional harassment;

(c) Take a marine mammal specified in § 216.120(b) if such take 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 these regulations or a Letter of Authorization issued under § 216.106.

§ 216.124 Mitigation.

(a) The activity identified in § 216.120(a) must be conducted in a manner that minimizes, to the greatest extent possible, adverse impacts on

marine mammals and their habitats. When conducting operations identified in § 216.120, the following mitigation measures must be utilized:

(1) All aircraft and helicopter flight paths must maintain a minimum distance of 1,000 ft (305 m) from recognized seal haulouts and rookeries (e.g., Point Sal, Purisima Point, Rocky Point), except in emergencies or for real-time security incidents (e.g., search-and-rescue, fire-fighting) which may require approaching pinniped rookeries closer than 1,000 ft (305 m).

(2) For missile and rocket launches, unless constrained by other factors including, but not limited to, human safety, national security or launch trajectories, in order to ensure minimum negligible impacts of launches on harbor seals and other pinnipeds, holders of Letters of Authorization must avoid, whenever possible, launches during the harbor seal pupping season of February through May.

(3) For Titan IV launches only, the holder of that Letter of Authorization must avoid launches, whenever possible, which predict a sonic boom on the Northern Channel Islands during harbor seal, elephant seal, and California sea lion pupping seasons.

(4) If post-launch surveys determine that an injurious or lethal take of a marine mammal has occurred, the launch procedure and the monitoring methods must be reviewed, in cooperation with NMFS and appropriate changes made through modification to a Letter of Authorization, prior to conducting the next launch under that Letter of Authorization.

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

(b) [Reserved]

§ 216.125 Requirements for monitoring and reporting.

(a) Holders of Letters of Authorization issued pursuant to § 216.106 for activities described in § 216.120(a) are required to cooperate with the National Marine Fisheries Service, and any other Federal, state or local agency monitoring the impacts of the activity on marine mammals. Unless specified otherwise in the Letter of Authorization, the Holder of the Letter of Authorization must notify the Administrator, Southwest Region, National Marine Fisheries Service, by letter or telephone, at least 2 weeks prior to activities involving the taking of marine mammals.

(b) Holders of Letters of Authorization must designate qualified on-site individuals, as specified in the Letter of Authorization, to:

(1) Conduct observations on harbor seal, elephant seal, and sea lion activity

in the vicinity of the rookery nearest the launch platform or, in the absence of pinnipeds at that location, at another nearby haulout, for at least 72 hours prior to any planned launch and continue for a period of time not less than 48 hours subsequent to launching.

(2) Monitor haulout sites on the Northern Channel Islands if it is determined that a sonic boom could impact those areas (this determination will be made in coordination with the National Marine Fisheries Service).

(3) As required under a Letter of Authorization, investigate the potential for spontaneous abortion, disruption of effective female-neonate bonding, and other reproductive dysfunction.

(4) Supplement observations on Vandenberg and on the Northern Channel Islands, if indicated, with video-recording of mother-pup seal responses for daylight launches during the pupping season, and

(5) Conduct acoustic measurements of those launch vehicles not having sound pressure level measurements made previously.

(c) Holders of Letters of Authorization must conduct additional monitoring as required under an annual Letter of Authorization.

(d) The Holder of the Letter of Authorization must submit a report to the Southwest Administrator, National Marine Fisheries Service within 90 days after each launch. This report must contain the following information:

(1) Date(s) and time(s) of the launch, and

(2) Results of the monitoring programs, including, but not necessarily limited to:

(i) Numbers of pinnipeds present on the haulout prior to commencement of the launch,

(ii) Numbers of pinnipeds that may have been harassed as noted by the number of pinnipeds estimated to have entered the water as a result of launch noise,

(iii) The length of time(s) pinnipeds remained off the haulout or rookery,

(iv) The numbers of pinniped adults or pups that may have been injured or killed as a result of the launch, and

(v) Behavioral modifications by pinnipeds noted that were likely the result of launch noise or the sonic boom.

(e) An annual report must be submitted that describes in summary form any incidental takings not reported under paragraph (d) of this section.

(f) A final report must be submitted at least 180 days prior to expiration of these regulations. This report will:

(1) Summarize the findings made in all previous reports,

(2) Assess the impacts at each of the major rookeries,

(3) Assess the cumulative impact on pinnipeds and other marine mammals from Vandenberg activities, and

(4) State the date(s) location(s) and findings of any research activities related to monitoring the effects of launch noise and sonic booms on marine mammal populations.

§ 216.126 Applications for Letters of Authorization.

(a) To incidentally take harbor seals and other marine mammals pursuant to these regulations, either the U.S. citizen (see definition at § 216.103) conducting the activity or the 30th Space Wing on behalf of the U.S. citizen conducting the activity, must apply for and obtain a Letter of Authorization in accordance with § 216.106.

(b) The application must be submitted to the National Marine Fisheries Service at least 30 days before the activity is scheduled to begin.

(c) Applications for Letters of Authorization and for renewals of Letters of Authorization must include the following:

(1) Name of the U.S. citizen requesting the authorization,

(2) A description of the activity, the dates of the activity, and the specific location of the activity, and

(3) Plans to monitor the behavior and effects of the activity on marine mammals.

(d) A copy of the Letter of Authorization must be in the possession of the persons conducting activities that may involve incidental takings of seals and sea lions.

§ 216.127 Renewal of Letters of Authorization.

A Letter of Authorization issued under § 216.126 for the activity identified in § 216.120(a) will be renewed annually upon:

(a) Timely receipt of the reports required under § 216.125(d), which have been reviewed by the Assistant Administrator and determined to be acceptable;

(b) A determination that the mitigation measures required under § 216.124 and the Letter of Authorization have been undertaken; and

(c) A notice of issuance of a Letter of Authorization or of a renewal of a Letter of Authorization will be published in the **Federal Register** within 30 days of issuance.

§ 216.128 Modifications of Letters of Authorization.

(a) In addition to complying with the provisions of § 216.106, except as

provided in paragraph (b) of this section, no substantive modification, including withdrawal or suspension, to the Letter of Authorization issued pursuant to § 216.106 and subject to the provisions of this subpart shall be made until after notice and an opportunity for public comment.

(b) If the Assistant Administrator determines that an emergency exists that poses a significant risk to the well-being of the species or stocks of marine mammals specified in § 216.120(b) or that significantly and detrimentally alters the scheduling of launches, a Letter of Authorization issued pursuant to § 216.106 may be substantively modified without a prior notice and an opportunity for public comment. A notice will be published in the **Federal Register** subsequent to the action.

§ 216.129 [Reserved]

[FR Doc. 98-19392 Filed 7-20-98; 8:45 am]

BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 660

[Docket No. 980714174-8174-01; I.D. 061898B]

RIN 0648-AK60

Fisheries Off West Coast States and in the Western Pacific; Western Pacific Precious Corals Fisheries; Amendment 3

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

ACTION: Proposed rule; request for comments.

SUMMARY: NMFS proposes regulations to implement Amendment 3 to the Fishery Management Plan for the Precious Corals Fisheries of the Western Pacific Region (FMP). Amendment 3 would establish framework procedures enabling management measures to be established and/or changed via rulemaking rather than through FMP amendment. The intent of this action is to enable the Western Pacific Fishery Management Council (Council) to respond quickly to rapid changes in the Western Pacific precious corals fisheries.

DATES: Comments on this proposed rule must be received on or before September 4, 1998.

ADDRESSES: Comments on this proposed rule or Amendment 3 should be sent to,

and copies of these documents are available from, Kitty Simonds, Executive Director, Western Pacific Fishery Management Council, 1164 Bishop St., Suite 1400, Honolulu, HI 96813.

FOR FURTHER INFORMATION CONTACT:

Alvin Katekaru, Fishery Management Specialist, Pacific Islands Area Office, NMFS at (808) 973-2985 or Kitty Simonds at (808) 522-8220.

SUPPLEMENTARY INFORMATION: NMFS is proposing this rule based on a recommendation of the Council under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act). It would establish framework procedures under FMP Amendment 3 to enable the Council and NMFS to change elements of the management regime governing the Western Pacific precious corals fisheries through rulemaking rather than through FMP amendment. The procedures would specify how certain new measures may be established in response to changes that may occur rapidly in the fishery, as well as how established measures (e.g., seasons, permit requirements, quotas, closures, area limitations, gear and coral size restrictions) may be revised without the Council having to develop and NMFS implement an FMP amendment. With the concurrence of the Council, the Southwest Regional Administrator, NMFS, would be able to initiate rulemaking. Each action taken under the framework process would entail documentation of the analysis of impacts of that action. Advance public notice, public discussion, and consideration of public comment on each framework action are required. Amendment 3 itself describes the framework procedure in more detail than the regulatory text of this rule.

On January 14, 1998, a notice of availability of draft FMP Amendment 3 was published in the **Federal Register** (63 FR 2195). The draft included two actions: Establishment of framework procedures and inclusion in the management unit of precious corals in the exclusive economic zone waters around the Commonwealth of the Northern Mariana Islands (CNMI) (which would have been managed as an exploratory permit area). The notice also indicated that the Council staff would submit the amendment for Secretarial review only if no substantive or critical comments were received during a 45-day public review period. The Council received substantive comments on the proposal to manage precious corals in the waters off CNMI as an exploratory permit area. However, no comments

were received regarding the proposal to establish the framework procedures.

Subsequently, Council staff revised the draft amendment by removing the CNMI provision, and a new draft was prepared for Secretarial review. At its 95th meeting held in April 1998, the Council concurred with the revised draft amendment.

Framework procedures appear needed because of present interest in the harvest of precious corals at the established coral bed at Makapuu Point, Oahu, Hawaii, and around the main Hawaiian Islands. Pre-harvest surveys conducted in 1997 at the Makapuu bed indicate this bed to be at least 15 percent larger than it was 12 years ago. Recruitment of pink coral at the Makapuu bed is undiminished compared to 1991; however, recruitment of gold coral has been very low. Framework procedures under proposed FMP Amendment 3 would, for example, enable the Council to modify the harvestable size of the Makapuu precious coral bed or to adjust the quota on gold coral, if needed, in a timely manner.

Classification

At this time, NMFS has not determined that Amendment 3, which this rule would implement, is consistent with the national standards of the Magnuson-Stevens Act and other applicable laws. NMFS, in making that determination, will take into account the data, views, and comments received during the comment period.

This proposed rule has been determined to be not significant for the purposes of E.O. 12866.

The Assistant General Counsel for Legislation and Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities as follows:

The National Marine Fisheries Service considers an impact to be significant if it results in a reduction in annual gross revenues by more than 5 percent, an increase in annual compliance costs of greater than 5 percent, compliance costs at least 10 percent higher for small entities than for large entities, compliance costs that require significant capital expenditures, or the likelihood that 2 percent of the small entities would be forced out of business. NMFS considers a "substantial number" of small entities to be more than 20 percent of those small entities affected by the regulation engaged in the fishery. Since the proposed action is