



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
Silver Spring, MD 20910

JAN 25 2010

Ms. Beatrice L. Kephart  
Chief, Environmental Flight  
30th Space Wing  
Department of the Air Force  
1028 Iceland Avenue  
Vandenberg AFB, CA 93437-6010

Dear Ms. Kephart:

Enclosed is a Letter of Authorization (LOA) issued to the 30<sup>th</sup> Space Wing, U.S. Air Force, under the authority of Section 101(a)(5)(A) of the Marine Mammal Protection Act (MMPA; 16 U.S.C. 1361 et seq.), to harass Pacific harbor seals, California sea lions, northern elephant seals, and northern fur seals incidental to missile and rocket launches, aircraft flight test operations, and helicopter operations at Vandenberg Air Force Base (VAFB), California. This LOA is valid from February 7, 2010, through February 6, 2011.

You are required to comply with the conditions contained in the LOA. In addition, you must submit a draft report to the National Marine Fisheries Service's (NMFS) Division of Permits, Conservation, and Education, Office of Protected Resources (PR) and NMFS' Southwest Regional Office no later than 60 days prior to the expiration of this Authorization. The LOA requires maintaining a minimum distance of 1,000 feet (305 meters) between the flight paths of all aircraft and recognized seal haul-outs and rookeries, monitoring the presence of seals and other marine mammals, reporting any behavioral modifications resulting from this activity as observed by a qualified individual, and continuation of research on affected marine mammals.

If you have any questions concerning the regulations, the LOA, or its requirements, please contact Candace Nachman, Office of Protected Resources, NMFS at (301) 713-2289 ext. 156, or Monica DeAngelis, Southwest Regional Office, NMFS at (562) 980-3232.

Sincerely,

  
James H. Lecky, Director  
Office of Protected Resources

Enclosure





### Letter of Authorization

The 30<sup>th</sup> Space Wing, U.S. Air Force (the Holder), is hereby authorized to take marine mammals incidental to those activities at Vandenberg Air Force Base (VAFB), California, in accordance with 50 CFR 216, Subpart K--Taking Of Marine Mammals Incidental To Space Vehicle And Test Flight Activities subject to the provisions of the Marine Mammal Protection Act (16 U.S.C. 1361 *et seq.*; MMPA) and the following conditions:

1. This Authorization is valid from February 7, 2010, through February 6, 2011.
2. This Authorization is valid only for missile, rocket, and aircraft and helicopter activities at VAFB, California.

#### 3. General Conditions

(A) The taking, by Level B harassment only, is limited to the species listed under Paragraph 5 below. The taking by Level A harassment, serious injury (injury that is likely to lead to mortality) or death of these species and the taking by harassment, injury or death of any other species of marine mammal is prohibited and may result in the modification, suspension, or revocation of this Authorization.

(B) The taking of any marine mammal in a manner prohibited under this Authorization must be reported immediately to the Permits, Conservation, and Education Division, Office of Protected Resources, National Marine Fisheries Service (NMFS) at (301) 713-2289 and to the Southwest Regional Office, NMFS at (562) 980-3232.

(C) If a freshly dead or seriously injured pinniped is found during post-launch monitoring, it must be reported immediately to the parties listed above in 3(B). Additionally, the National Stranding Network must be notified immediately (telephone: (526) 980-4017). Every attempt will be made to collect pinniped carcasses discovered within 48 hours following a launch, provided that the collection does not result in the disturbance (flushing) of other animals on the site. Any carcasses collected will be transferred to Long Marine Laboratory in Santa Cruz, California for complete necropsy.

4. The Holder of this Authorization is required to cooperate with NMFS and any other Federal, state or local agency monitoring the impacts of the activity on seals, sea lions, or other marine mammals. The Holder must notify the Administrator, Southwest Region, NMFS, 501 West Ocean Blvd. Suite 4200, Long Beach, California 90802, or the Administrator's representative (telephone: (562) 980-3232), at least two (2) weeks prior to conducting any launch activities that may result in taking marine mammals by harassment.



5. The marine mammal species approved for taking by incidental harassment are: Pacific harbor seals (*Phoca vitulina richardsi*); California sea lions (*Zalophus californianus*); northern elephant seals (*Mirounga angustirostris*); and northern fur seals (*Callorhinus ursinus*).

6. The following activities at VAFB are authorized to take, by incidental harassment only, those species of marine mammals identified in Paragraph 5:

- (A) Launching of no more than 30 of the following missile types:
1. Aries,
  2. Black Brant (including but not limited to IX),
  3. Castor (including but not limited to I, IVB),
  4. Flexible Target Family (including but not limited to LV-2, LV-3),
  5. Ground Based Interceptor (including but not limited to 2-Stage, 3-Stage, Booster Verification Test, and Orbital Boost Vehicle),
  6. Hera,
  7. Hermes,
  8. Kinetic Energy Interceptor (including but not limited to 2-Stage Booster, 3-Stage Booster),
  9. Lance,
  10. Liquid Fueled Target System (also LPT),
  11. Minuteman (including but not limited to II and III),
  12. Patriot (including but not limited to As A Target, PAC-2),
  13. SR-19 (including but not limited to M57, SR19, SR73),
  14. Storm,
  15. STRYPI II, and
  16. Terrier (including but not limited to Lynx, Orion, 2-Stage).

(B) Launching of no more than 20 rockets from VAFB, California, made up of the following rocket types:

1. Atlas V,
2. Delta II,
3. Delta IV,
4. Falcon,
5. Minotaur, and
6. Taurus.

(C) Aircraft flight test operations from VAFB; and

(D) Helicopter operations from VAFB.

7. Mitigation. Unless constrained by human safety, national security, or launch trajectories, the Holder of this Authorization must ensure the least practicable adverse impacts on Pacific harbor seals, California sea lions, northern elephant seals, and northern fur seals, by:



(A) Ensuring that all aircraft and helicopter flight paths maintain a minimum distance of 1,000 ft (305 m) from recognized seal haul-outs and rookeries (e.g., Point Sal, Purisima Point, Rocky Point);

(B) Avoiding, whenever possible, launches during the harbor seal pupping season of March through June;

(C) Avoiding, whenever possible, launches that will produce a sonic boom over the Northern Channel Islands during the peak pinniped pupping season of March through June; and

(D) Reviewing the launch procedure and monitoring methods, in cooperation with NMFS, if any incidents of injury or mortality of a pinniped discovered during post-launch surveys or indications of effects to the distribution, size, or productivity of the affected pinniped populations as a result of the authorized activities are thought to have occurred. If necessary, appropriate changes must be made through modification to this Authorization prior to conducting the next launch of the same vehicle.

8. Monitoring. The Holder of this Authorization must designate at least one qualified, on-site observer, approved in advance by the Regional Administrator, NMFS, and trained in marine mammal science, for each pinniped monitoring location to:

(A) Record the effects of launches on pinniped populations;

(B) Monitor harbor seal and other pinniped activity at the nearest occupied haulout(s) and rookery/rookeries in the vicinity of the appropriate launch platform, commencing at least 72 hours prior to any planned launch occurring during the harbor seal pupping season (March 1 through June 30) and continuing for a period of time not less than 48 hours subsequent to launching;

(C) Supplement monitoring conducted under condition 8.B. with video recording, during daylight hours, of mother-pup seal responses to launches during the pupping season;

(D) Conduct follow-up surveys within two weeks of the launch (if it occurred during the harbor seal pupping season of March through June) to ensure that there were no adverse impacts on any marine mammals;

(E) Conduct acoustic and biological monitoring on new space and missile launch vehicles during at least the first launch, whether it occurs within the pupping season or not;

(F) Monitor the first three launches of the Delta IV and conduct Auditory Brainstem Response hearing tests of animals in close proximity to the launch;

(G) Monitor, using prediction models to determine the location of a sonic boom in the vicinity of the Northern Channel Islands, the pinniped populations predicted to be subject to a sonic boom greater than 1 lb/ft<sup>2</sup>. Monitoring will commence at least 72 hours prior to the launch and continue until at least 48 hours after the launch;

(H) Investigate the potential for spontaneous abortion, disruption of effective female-neonate bonding, and other reproductive dysfunction; and

(I) Include multiple surveys each day that record, when possible, the species, number of animals, general behavior, presence of pups, age class, gender, and reaction to launch noise, sonic booms or other natural or human-caused disturbances. Environmental conditions such as tide, wind speed, air temperature, and swell must also be recorded.

9. Activities related to the monitoring described in this Authorization do not require a separate scientific research permit issued under Section 104 of the MMPA.

#### 10. Reporting.

(A) VAFB must submit a draft annual report to the Permits, Conservation and Education Division, Office of Protected Resources, NMFS at 1315 East-West Highway, Silver Spring, MD 20910 and the Administrator, Southwest Region, NMFS, no later than 60 days prior to the expiration of this Authorization. This report must contain detailed information on the following:

1. Date(s) and time(s) of each missile and rocket launch;
2. Design of the monitoring program;
3. Results of the monitoring programs described under conditions 8.A. through 8.I. above. This report must provide:
  - (i) dates and times of all monitoring activities;
  - (ii) details of all marine mammal sightings, including the number of pinnipeds, by species and haul-out location, that remained ashore and/or fled from the beach because of authorized activities;
  - (iii) the number of seals and sea lions, by species, returning subsequent to the disruption (including estimates of the time it took for pinnipeds to return to haul-outs), and estimates of the amount and nature of all takes, including those by mortality or serious injury;
4. Date(s) and location(s) of any research activities related to monitoring the effects of launch noise and sonic booms on marine mammal populations; and

5. A summary of the observed effects of fixed wing and helicopter operations on marine mammals at VAFB.

(B) The draft annual report will be subject to review and comment by the Chief of the Permits, Conservation and Education Division, NMFS, and the Regional Administrator, Southwest Region, NMFS. Prior to acceptance by NMFS, any recommendations made by NMFS within 60 days of its receipt must be addressed in a final report.


(C) VAFB must submit a draft comprehensive report to the Permits, Conservation and Education Division, Office of Protected Resources, NMFS at 1315 East-West Highway, Silver Spring, MD 20910 and the Administrator, Southwest Region, NMFS, at least 180 days prior to the expiration of the current regulations. This report will:

1. Summarize the activities undertaken and the results reported in all previous reports;
2. Assess the impacts at each of the major rookeries;
3. Assess the cumulative impacts 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.

(D) The draft comprehensive report will be subject to review and comment by the Chief of the Permits, Conservation and Education Division, NMFS, and the Regional Administrator, NMFS. Prior to acceptance by NMFS, any recommendations made by NMFS within 60 days of its receipt must be addressed in a final report.

11. Research. During the period of validity of this Authorization, the Holder must continue the research described under Scientific Research Permit No. 14197, which expires on June 30, 2014.

12. A copy of this Authorization must be in the possession of each observer or group operating under the authority of this Authorization at all times.

*for*   
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 James H. Lecky,  
 Director  
 Office of Protected Resources  
 National Marine Fisheries Service

1/25/10  
 Date