

**Finding of No Significant Impact (FONSI) for the Environmental Assessment on the
Issuance of Regulations to Take Marine Mammals by Harassment Incidental to
Space Vehicle and Test Flight Activities from Vandenberg Air Force Base,
California
National Marine Fisheries Service**

The National Marine Fisheries Service (NMFS) received an application from the U.S. Air Force (USAF) for regulations and subsequent letters of authorization (LOAs) pursuant to its responsibility to authorize the taking of marine mammals incidental to an otherwise lawful activity other than commercial fishing, provided that NMFS determines that the action will have a negligible impact on the affected species or stocks of marine mammals, will not have an unmitigable adverse impact on the availability of those species or stocks of marine mammals intended for subsistence uses, and that the permissible methods of taking and requirements pertaining to the mitigation, monitoring, and reporting of such takings are set forth. NMFS has satisfied those requirements for this authorization for the take of four species of marine mammals, by Level B Harassment only, incidental to the preferred alternative for the space vehicle and test flight activities from Vandenberg Air Force Base, California (VAFB) for the period of February 2009 to February 2014.

As background, in July 1997, the USAF prepared a Final Environmental Assessment (EA) on the *Issuance of a Letter of Authorization for the Incidental Take of Marine Mammals for Programmatic Operations at Vandenberg Air Force Base, California* (USAF 1997 Final EA). In accordance with NOAA Administrative Order (NAO) 216-6 (Environmental Review Procedures for Implementing the National Environmental Policy Act, May 20, 1999), NMFS reviewed the information contained in the USAF 1997 Final EA, and, on March 1, 1999, determined that it accurately and completely described the proposed action, the alternatives to the proposed action, and the potential impacts on marine mammals, endangered species, and other marine life that could be impacted by the preferred alternative and the other alternatives. Accordingly, on March 1, 1999, NMFS adopted the USAF 1997 Final EA under 40 CFR 1506.3 to support the issuance of regulations and subsequent LOAs to the USAF to conduct space vehicle and test flight activities from VAFB for the period of 1999 through 2003. In January 2004, NMFS prepared its own EA and made a new FONSI determination on January 5, 2004, to support the issuance of new five-year regulations to the USAF for the same activities that had been previously authorized by NMFS in 1999.

In December 2008, NMFS completed a *Draft Environmental Assessment on the Issuance of Regulations to Take Marine Mammals by Harassment Incidental to Space Vehicle and Test Flight Activities from Vandenberg Air Force Base, California*. NMFS requested comments from the public on the Draft EA and made it available to the public concurrently with the *Federal Register* notice of proposed rulemaking (73 FR 77577, December 19, 2008). This FONSI has been prepared to evaluate the significance of the impacts of NMFS' proposed action and is specific to Alternative 2 in the EA, which was identified in a January 2009 Final EA as the preferred alternative. Alternative 2 is entitled "Issuance of Five-year Regulations and Annual LOAs to the USAF with Required Mitigation, Monitoring, and Reporting Requirements."

NAO 216-6 (May 20, 1999) contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at 40 C.F.R. §1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion listed below is relevant to making a finding of no significant impact and has been considered individually, as well as in combination with the others. The significance of this action is analyzed based on NOAA's criteria and CEQ's context and intensity criteria. These include:

1) Can the proposed action reasonably be expected to cause substantial damage to the ocean and coastal habitats and/or essential fish habitat as defined under the Magnuson-Stevens Fishery Conservation and Management Act and identified in fishery management plans?

Response: NMFS does not anticipate the proposed activity would cause substantial damage to the ocean and coastal habitats. The proposed launch vehicles are launched on land, and the aircraft activities would occur above the water. The EA evaluates the affected environment and potential effects of the USAF action, indicating that the sounds produced by the space launch vehicles and the aircraft operations only have the potential to affect pinnipeds hauled out on land. These temporary acoustic activities would not affect physical habitat features, such as substrates and water quality. With respect to the coastal locations that provide important pinniped habitat, the effects on pinnipeds themselves can result in flushing from haul-out sites and would be the same as caused by normal hauling out and entering into the water. Therefore, substantial damage to these coastal habitats would not occur.

2) Can the proposed action be expected to have a substantial impact on biodiversity and/or ecosystem function within the affected area (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: NMFS does not expect the proposed action to have a substantial impact on biodiversity or ecosystem function within the affected area. The impacts of the proposed action on marine mammals are specifically related to the sounds produced by the launch vehicles and aircraft, and these are expected to be temporary in nature, affect pinnipeds hauled out on land, and not result in substantial impacts to marine mammals or to their role in the ecosystem. The IHA anticipates, and will authorize, the Level B Harassment only, in the form of temporary behavioral disturbance and temporary threshold shift (TTS), of four species of pinnipeds. However, neither serious injury nor mortality is anticipated or authorized, and the Level B Harassment is not expected to affect biodiversity or ecosystem function.

The potential for the USAF activity to affect other ecosystem features and biodiversity components, including fish and other marine life are analyzed in the EA. NMFS evaluation indicates that any direct or indirect effects of the action would not result in a substantial impact on biodiversity or ecosystem function. Fish and other

marine life, including cetaceans or submerged pinnipeds, are unlikely to be affected since noise generated by space vehicle launches and aircraft operations will mostly reflect from the water's surface and not penetrate into water depths. Any sounds that do penetrate will be momentary (as the aircraft or missile passes overhead) and of low sound pressure levels (SPLs) as attenuation reduces those SPLs. Serious injury or mortality is not expected. Therefore, NMFS finds that the effects from the proposed action on fish and other marine life are not anticipated to have a substantial effect on biodiversity and/or ecosystem function within the affected area.

3) Can the proposed action reasonably be expected to have a substantial adverse impact on public health or safety?

Response: NMFS does not expect this action to have a substantial adverse impact on public health or safety. Humans are excluded from launch areas for the hours immediately preceding, during, and just after the launches pursuant to USAF policy. Additionally, there would only be a maximum of 30 launches in any given year.

4) Can the proposed action reasonably be expected to adversely affect endangered or threatened species, their critical habitat, marine mammals, or other non-target species?

Response: The USAF has consulted with NMFS on several occasions regarding species listed as threatened or endangered under the Endangered Species Act (ESA). On October 31, 1988, NMFS issued a Biological Opinion to the USAF, which concluded that launchings of the Titan IV were not likely to jeopardize the continued existence of the Guadalupe fur seal. The USAF 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 the Steller sea lion had not been sighted on the Northern Channel Islands (NCI) 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 an incidental take authorization to the USAF to take marine mammals incidental to Titan IV launches was not likely to jeopardize the continued existence of Steller sea lions or Guadalupe fur seals. In 1999 and 2003, NMFS determined that the issuance of regulations governing the taking of marine mammals incidental to missile and rocket launches and aircraft operations was unlikely to affect ESA-listed marine mammals. Therefore, based on these prior ESA determinations for this action, NMFS has determined that the proposed action is Not Likely to Adversely Affect species listed as threatened or endangered under the ESA that are under NMFS' jurisdiction. Note that there is no ESA critical habitat in the action area.

The USAF has consulted with the U.S. Fish and Wildlife Service (USFWS) regarding ESA-listed species in the action area that are under the jurisdiction of the USFWS. Those species are not expected to be jeopardized by the space vehicle and test flight activities. Therefore, the NMFS proposed action of the promulgation of regulations and issuance of LOAs pursuant to section 101(a)(5)(A) of the Marine Mammal Protection

Act (MMPA) is not expected to jeopardize ESA-listed species under USFWS' jurisdiction or cause adverse modification to their critical habitat.

NMFS has determined that the space vehicle and test flight activities may result in some Level B Harassment (in the form of short-term changes in behavior, temporary displacement from haul-out sites, or TTS) of four (non-ESA-listed) pinniped species. No serious injury or mortality is anticipated or authorized. Taking into account the mitigation measures that are planned (minimum altitudes for aircraft flight paths, except for emergencies or for real-time security incidents, from recognized seal haulout sites and rookeries and limiting launches during harbor seal pupping on VAFB and pinniped pupping seasons on the Northern Channel Islands), effects on marine mammals from the preferred alternative are expected to be limited to short-term behavioral changes, temporary displacement from haul-out sites, and TTS, falling within the MMPA definition of "Level B harassment". The take is anticipated to have a negligible impact on the affected species or stock, and this determination will be assessed in more detail in the final rule for this action.

5) Are significant social or economic impacts interrelated with natural or physical environmental effects?

Response: The primary impacts to the natural and physical environment are expected to be acoustic and temporary in nature (and not significant), and not interrelated with significant social or economic impacts. Additionally, this action will not have a significant social or economic impact as the action is confined to military personnel and contractors. Issuance of the regulation and subsequent LOAs will authorize the unintentional harassment of marine mammals incidental to specified launch activities, and this authorization is considered necessary for these activities to be conducted in a manner that is compliant with the MMPA. Since VAFB supports commercial test activities, issuance of the regulations is considered to have an indirect beneficial economic impact related to the ability to continue these commercial activities.

6) Are the effects on the quality of the human environment likely to be highly controversial?

Response: The effects of this action on the quality of the human environment are not likely to be highly controversial. NMFS has been issuing MMPA authorizations to the USAF to conduct these activities from VAFB for more than 20 years, which has allowed NMFS to develop relatively standard mitigation and monitoring requirements for these activities and to assess the effects with data from comprehensive monitoring reports. Rarely more than one or two public comments are received. NMFS published a Notice of Receipt of the USAF's application in the *Federal Register* on July 25, 2008 (73 FR 43410), which allowed the public to submit comments for up to 30 days from the date of publication of the notice. NMFS received comments from the Marine Mammal Commission (Commission) and one private citizen. Those comments and NMFS' responses were published in the proposed rule *Federal Register* notice (73 FR 77577, December 19, 2008).

The proposed rule *Federal Register* notice (73 FR 77577, December 19, 2008) allowed the public to submit comments for up to 15 days from the date of publication of the notice. The only comments received on the proposed rule were sent by the Commission and the same private citizen who commented on the notice of receipt. These comments and NMFS' responses will be published in the final rule *Federal Register* notice. None of the comments received specifically addressed NEPA-related issues or the Draft EA that NMFS made available for comment concurrently with the proposed rule.

7) Can the proposed action reasonably be expected to result in substantial impacts to unique areas, such as historic or cultural resources, park land, prime farmlands, wetlands, wild and scenic rivers, essential fish habitat, or ecologically critical areas?

Response: NMFS' promulgation of regulations and subsequent issuance of LOAs to the USAF to conduct its space vehicle and test flight activities is not expected to impact any unique areas as described here. The USAF does not expect substantial impacts to unique areas, nor does NMFS expect the authorization to have a significant effect on marine mammals that may be important resources in such areas. To the extent that marine mammals are important features of these resource areas, the potential impacts on marine mammals might result in short-term behavioral effects to and TTS of pinnipeds on VAFB or the NCI, but no long-term displacement or permanent threshold shift in the hearing sensitivities of marine mammals, endangered species, or their prey is expected as a result of the action or the marine mammal authorization. The NCI are part of the Channel Islands National Park and the Channel Islands National Marine Sanctuary. NMFS contacted the National Ocean Service's Office of National Marine Sanctuaries (ONMS) regarding NMFS' proposed action of promulgating regulations and subsequent issuance of annual LOAs for the USAF's activities. ONMS determined that no further consultation was required by NMFS on its proposed action as it is not likely to result in substantial impacts to the sanctuary.

8) Are the effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The effects of the action on the human environment are not likely to be highly uncertain or involve unique or unknown risks. The exact mechanisms of how different sounds may affect certain marine organisms are not fully understood, but there is no substantial dispute about the size, nature, or effect of this particular action. The mitigation and monitoring requirements required of the USAF at VAFB are designed to ensure the least practicable adverse impact on the affected species or stocks of marine mammals and also to gather additional data. For military readiness activities (as described in the National Defense Authorization Act), a determination of least practicable adverse impacts on a species or stock includes consideration, in consultation with the Department of Defense, of personnel safety, practicality of implementation, and impact on the effectiveness of the military readiness activity. The mitigation and monitoring measures described in the EA will help reduce highly uncertain and unique and unknown

risks to human life while still effecting the least practicable adverse impact on the affected species or stocks in the proposed action area. Lastly, NMFS has been authorizing take for these activities for more than 20 years, and monitoring reports received pursuant to the requirements of the authorizations have not indicated resulting effects that were not anticipated or authorized.

9) Is the proposed action related to other actions with individually insignificant, but cumulatively significant impacts?

Response: There are other military activities in Southern California that may result in the harassment of marine mammals. However, these activities, which are described in the cumulative impacts analysis in the EA, (e.g., missile launch operations by the U.S. Navy (Navy) from San Nicolas Island and Navy testing and training in the Southern California Range Complex) are generally separated both geographically and temporally; all are infrequent in occurrence and short-term in nature. In addition, all currently use mitigation and monitoring procedures to ensure that no marine mammals or ESA-listed species are killed or seriously injured, and measures are taken to minimize impacts to the lowest level practicable. As a result, the space vehicle and test flight activities by the USAF in the proposed action area are not likely to have a significant cumulative effect on the marine environment when considered with these other actions.

This area is known for heavy commercial marine traffic. While ship strikes are potential sources of serious injury or mortality to large whales, the occurrence of ship strikes of pinnipeds is rare. Effects to pinnipeds from large commercial vessels are believed to be limited to acoustical harassment. Additionally, marine mammal research, geophysical seismic surveys, and other scientific research activities occur within the Pacific Ocean along the California coast. Results from research studies conducted in the area indicate that the activities only have temporary, short-term impacts on the behavior of the animals. Monitoring reports from scientific research studies conducted near pinniped haul-out sites indicate that the most common responses of the pinnipeds observed to date include brief startle reactions as noted by lifting of the head or movement of less than one meter (three feet) and flushing into the water. None of these activities result in the injury or mortality of the animals. The activities noted here are subject to implementing mitigation and monitoring measures to reduce impacts to marine life to the greatest extent practicable. Therefore, NMFS believes that this action is not likely to result in cumulatively significant impacts to individual marine mammals or marine mammal populations in the area.

10) Is the proposed action likely to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural or historical resources?

Response: No. The proposed action and associated space vehicle and test flight activities on VAFB would not take place in any areas listed or eligible for listing in the National Register of Historic Places and would not cause loss or destruction of any significant cultural or historic resources.

11) Can the proposed action reasonably be expected to result in the introduction or spread of a non-indigenous species?

Response: No. The proposed action would not remove nor introduce any species out of or into the environment. Therefore, it would not result in the introduction or spread of non-indigenous species.

12) Is the proposed action likely to establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration?

Response: This action will not set a precedent for future actions with significant effects or represent a decision in principle. NMFS' actions under sections 101(a)(5)(A) and (D) of the MMPA must be based on the best available information, which is continuously evolving. Moreover, each action for which an incidental take authorization is sought must be considered in light of the specific circumstances surrounding the action. Mitigation and monitoring may vary depending on those circumstances. As mentioned above, NMFS has issued MMPA authorizations to the USAF to conduct these activities from VAFB for more than 20 years. The activities requested for authorization for the period of 2009-2014 have no unique aspects that would suggest it be a precedent for any future actions.

13) Can the proposed action reasonably be expected to threaten a violation of Federal, State, or local law or requirements imposed for the protection of the environment?

Response: No. The proposed USAF space vehicle and test flight activities and NMFS' promulgation of regulations and subsequent issuance of LOAs would not result in any violation of Federal, State, or local laws for environmental protection.

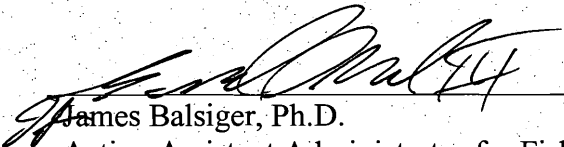
14) Can the proposed action reasonably be expected to result in cumulative adverse effects that could have a substantial effect on the target species or non-target species?

Response: No. NMFS conducted an analysis for the potential of cumulative adverse effects as a result of the USAF's space vehicle and test flight activities from VAFB in the EA. The proposed action does not target any marine mammal species, and NMFS has determined that it is not expected to result in any significant cumulative adverse effects on the species incidentally taken by harassment due to the USAF's military readiness activities from VAFB. NMFS has also determined that there is no significant cumulative adverse effect on marine mammals as a result of past, present, and reasonably foreseeable future military activities in the action area. Past monitoring reports for scientific research activities and research seismic activities in the Pacific Ocean along the California coast have concluded that no marine mammals were taken beyond authorized harassment levels nor were significantly affected by these activities. The regulations and LOAs would authorize only the Level B harassment of marine mammals. Any harassment of these marine mammal species that may potentially occur would be short-term and minimal. Moreover, because of the monitoring and mitigation

measures that will be required in the annual LOAs, no serious injury or mortality is expected of any marine mammals in the proposed action area. Therefore, no cumulative adverse effects that could have a substantial effect on any species would be expected.

DETERMINATION

In view of the information presented in this document and the analyses contained in the supporting Final Environmental Assessment on the Issuance of Regulations to Take Marine Mammals by Harassment Incidental to Space Vehicle and Test Flight Activities from Vandenberg Air Force Base, California, prepared by NMFS and the 1997 EA prepared by the USAF, it is hereby determined that the issuance of regulations and LOAs for the take, by harassment, of marine mammals incidental to space vehicle and test flight activities from VAFB in accordance with Alternative 2 in NMFS' 2009 EA will not significantly impact the quality of the human environment, as described above and in the USAF and NMFS EAs. In addition, all beneficial and adverse impacts of the proposed action have been addressed to reach the conclusion of no significant impacts. Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.


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Date