



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Anchorage Fish & Wildlife Field Office
605 West 4th Avenue, Room G-61
Anchorage, Alaska 99501-2249



In reply refer to:
AFWFO

July 30, 2010

VIA ELECTRONIC MAIL AND U.S. MAIL

Patricia Sullivan
Environmental Program Director
Federal Aviation Administration
Airports Division
222 W. 7th Avenue, Box 14
Anchorage, Alaska 99513-7587

Re: Reinitiation of Endangered Species Act Section 7 Consultation on the Akutan Airport Project
(*Consultation number 2007-0069-R001*)

Dear Ms. Sullivan,

On March 18, 2010, we received a request from the Federal Aviation Administration (FAA) to reinitiate consultation pursuant to section 7 of the Endangered Species Act (16 U.S.C. 1531 et seq., as amended, ESA) for the Akutan Airport Project. This reinitiation of formal consultation is intended to address the U.S. Fish and Wildlife Service's (FWS), division of Marine Mammals Management (MMM) issuance of an Incidental Harassment Authorization (IHA) for level B harassment of northern sea otters (*Enhydra lutris kenyoni*) as authorized under section 101(a)(5) of the Marine Mammal Protection Act and/or its 1994 Amendments (MMPA). Issuance of an IHA is a required precondition to allow for the issuance of an Incidental Take Permit (ITP) for marine mammals protected under the ESA. Furthermore, since the initial issuance of the Biological Opinion On the Effects of the Akutan Airport Project on Steller's Eiders (*Polysticta stelleri*) and Northern Sea Otter (*Enhydra lutris kenyoni*) in 2007 (hereafter referred to as the BiOp), critical habitat for the southwest Alaska Distinct Population Segment (DPS) of northern sea otters was designated. Thus, the enclosed document serves as an amendment to the BiOp issued in 2007. The amendment primarily addresses: 1) modifications to the action, which include issuance of an IHA by the FWS; and 2) analyses of potential effects of the action on critical habitat.

Project Background

The following is a summary of the section 7 consultation history for the Akutan Airport Project. A complete administrative record for this consultation is on file at the Anchorage Fish and Wildlife Field Office (AFWFO).

- February 5, 2007, Alaska Department of Transportation and Public Facilities (ADOT&PF) representing FAA verbally requested formal consultation pursuant to section 7 of ESA, and consultation was initiated by the AFWFO.
- April 4, 2007, the FWS met with FAA and ADOT&PF to discuss the ESA consultation, and the need for an IHA under the MMPA.
- April 16, 2007, a *Draft* BiOp was provided to FAA and ADOT&PF for review.
- May 30, 2007, the FWS issued a BiOp, which included estimates of incidental take, an ITP with Terms and Conditions for Steller's eiders, and instructions to apply for an IHA under MMPA in order to obtain an ITP for northern sea otters (FWS 2007).
- December 26, 2007, the Record of Decision was signed and the Final Environmental Assessment released.
- July 9, 2008, ADOT&PF and Aleutians East Borough (AEB) filed a joint application with the FWS division of MMM under Section 101 of the MMPA for a level B harassment authorization for northern sea otters incidental to the Akutan airport construction and hovercraft operation.
- October 8, 2008, critical habitat was designated for the southwest Alaska DPS of northern sea otter.
- November 10, 2008, MMM issued an IHA for Level B non-lethal harassment of northern sea otters for the period of May 1, 2009, to April 30, 2010. Due to funding constraints, no construction activities or hovercraft operations were conducted during this period; therefore no incidental take of sea otters occurred.
- January 22, 2009, DOT&PF requested renewal of the IHA for the period from May 1, 2010 through April 30, 2011.
- January 21, 2010, AEB requested renewal of the IHA through April 30, 2011.
- March 21, 2010, AFWFO received the proposal to renew the IHA from MMM.

The BiOp amendment (enclosed) considers the affects of the modified actions and the potential for adverse modification of critical habitat. Additionally, the amendment provides an ITP for persistent disturbance of up to 22 sea otters per year as a result of the regular operation of an airport-associated hovercraft operating between Akutan Harbor and Surf Bay. Reasonable and Prudent Measures and Terms and Conditions for the ITP are consistent with mitigation measures agreed upon for the IHA. Modifications to the action did not result in changes to the analyses or outcomes for Steller's eiders. Therefore, the amendment does not address Steller's eiders in any way.

This consultation relates only to federally listed or proposed species and/or designated or proposed critical habitat under our jurisdiction. It does not address species under the jurisdiction of National Marine Fisheries Service, or other legislation or responsibilities under the Fish and Wildlife Coordination Act, Clean Water Act, National Environmental Policy Act, Migratory Bird Treaty Act, or Bald and Golden Eagle Protection Act.

Patricia Sullivan

Thank you for your cooperation in meeting our joint responsibilities under section 7 of the ESA. If you have any questions, please contact me at (907) 271-2787 or Ellen Lance at (907) 271-1467. In future correspondences regarding this consultation please refer to consultation number 2007-0069-R001.

Sincerely,



Ann G. Rappoport
Field Supervisor

Enclosure (1)

cc: Douglas Burn, FWS, MMM
Dan Golden, ADOT&PF

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Amendment

To The

BIOLOGICAL OPINION

On the Effects of the Akutan Airport Project on Steller's Eiders (*Polysticta stelleri*) and Northern Sea Otter (*Enhydra lutris kenyoni*)

Purpose of the Amendment:

- 1) To analyze the effects of issuing an Incidental Harassment Authorization (IHA) for level B harassment (authorized under section 101(a)(5) of the Marine Mammal Protection Act and/or its 1994 Amendments; MMPA), which is a required precondition for issuing an Incidental Take Permit (ITP) for marine mammals protected under the Endangered Species Act (ESA), and;
- 2) To conduct an analysis for adverse modification of critical habitat. Critical habitat for the southwest Alaska Distinct Population Segment (DPS) of northern sea otter was not yet established when the original formal consultation was concluded in 2007 with a Biological Opinion (BiOp; consultation # 2007-0069; U.S. Fish and Wildlife Service 2007).

Description of the Proposed Action

The proposed actions include: 1) construction of a new airport on Akun Island, 2) construction of hovercraft landing pads at Akutan Harbor and Surf Bay on Akun Island, 3) operation of a hovercraft between the Village of Akutan and the new airport on Akun Island, and 4) issuance of a MMPA - IHA for level B harassment of sea otters. As per the BiOp, *Effects of the Akutan Airport Project on Steller's Eiders (Polysticta stelleri) and Northern Sea Otter (Enhydra lutris kenyoni)* (U.S. Fish and Wildlife Service 2007), take of northern sea otters in the form of disturbance is expected to occur incidental to the operation of the hovercraft. Issuance of the IHA authorizes disturbance of sea otters resulting from the operation of a hovercraft. While hovercrafts reportedly produce less wake and underwater noise than other marine vessels (HDR Alaska, Inc 2006), in-air sound is considered a source of disturbance for the listed sea otters within the action area.

Airport construction and operation, which includes the operation of the hovercraft are actions undertaken, funded and authorized by the Federal Aviation Administration (FAA) in cooperation with Alaska Department of Transportation and Public Facilities (DOT&PF). The issuance of an IHA under the authority of the MMPA is an action undertaken by the U.S. Fish and Wildlife Service (FWS). This amendment of the BiOp (U.S. Fish and Wildlife Service 2007) incorporates new information regarding the status of the proposed action, the southwest Alaska DPS of northern sea otter, the environmental baseline, and the effects of the action, and includes the action of issuing an IHA under the MMPA, which is required in order to issue an ITP under the ESA.

A detailed description of the airport proposal is contained in the BiOp (U.S. Fish and Wildlife Service 2007) and the Environmental Assessment for Akutan Airport Construction of a Land-Based Airport Akutan, Alaska (EA; HDR Alaska, Inc. 2007). However, changes to the airport

construction project have been made since the release of the EA, and those changes were identified in the application for renewal of the IHA submitted to FWS division of Marine Mammals Management (MMM) on January 22, 2010 (Aleutians East Borough, unpublished document, 2010). Airport construction and hovercraft testing will now commence in summer, 2010 and continue through 2012. Furthermore, the plans to: 1) monitor sea otter movements and diving behaviors and 2) to conduct aerial surveys in the project area have been removed. New monitoring requirements are described in the Terms and Conditions section below.

STATUS OF THE SPECIES - Northern Sea Otter (*Enhydra lutris kenyoni*)

In 2008, approximately 15,164 square kilometers (5,855 square miles) of nearshore marine habitat within the range of the listed, southwest Alaska DPS of northern sea otter was designated as critical habitat (Figure 1). The critical habitat areas, defined by Primary Constituent Elements (PCEs), include the intertidal zone, as well as adjacent shallow waters where otters may feed while being relatively protected from marine predators.

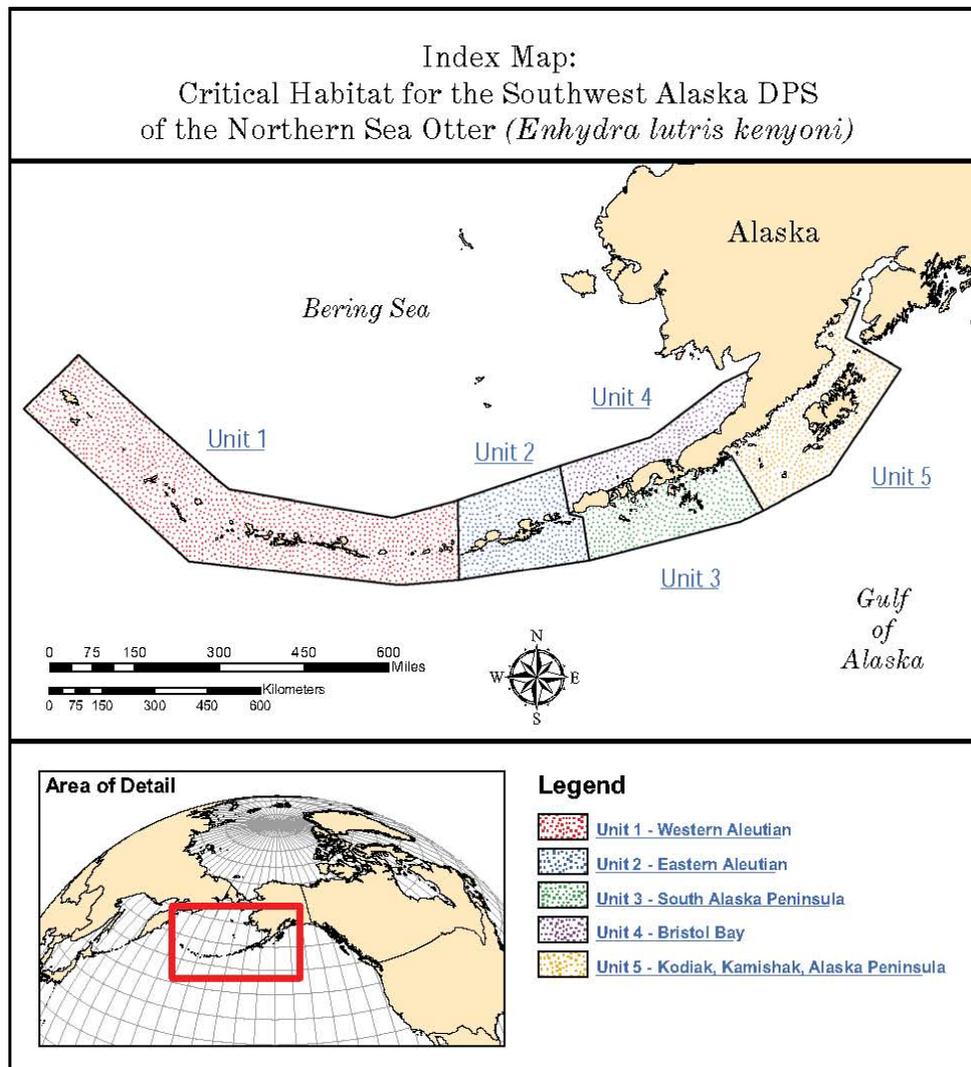


Figure 1. Critical habitat designated for the southwest DPS of northern sea otter in Alaska.
<http://alaska.fws.gov/fisheries/mmm/seaotters/criticalhabitat.htm>

The PCEs that comprise critical habitat for the southwest Alaska DPS of the northern sea otter's include:

- Shallow, rocky areas where marine predators are less likely to forage, which are waters less than 2 m (6.6 ft) in depth;
- Nearshore waters that may provide protection or escape from marine predators, which are those within 100 m (328.1 ft) from the mean high tide line;
- Kelp forests that provide protection from marine predators, which occur in waters less than 20 m (65.6 ft) in depth; and
- Prey resources within the areas identified by PCEs 1, 2, and 3 that are present in sufficient quantity and quality to support the energetic requirements of the species.

Critical habitat encompasses those areas containing the PCEs necessary to support one or more of the species' life history functions and laid out in the appropriate quantity and spatial arrangement essential to the conservation of the DPS. All units in this designation contain some or all of the PCEs and support multiple life processes.

ENVIRONMENTAL BASELINE

Status of the Species within the Action Area

In the action area, up to 36 sea otters have been observed in one day (HDR Alaska, Inc. 2004) however, this area is larger than what is expected relative to the hovercraft. It is estimated that up to 22 sea otters may occur within the buffer zone of the hovercraft's operating route (HDR Alaska, Inc. 2006b, Federal Register: June 8, 2010 (Volume 75, Number 109)).

Critical habitat for the listed sea otter has been designated along the shores of Akutan Harbor and Surf Bay (Figure 2).

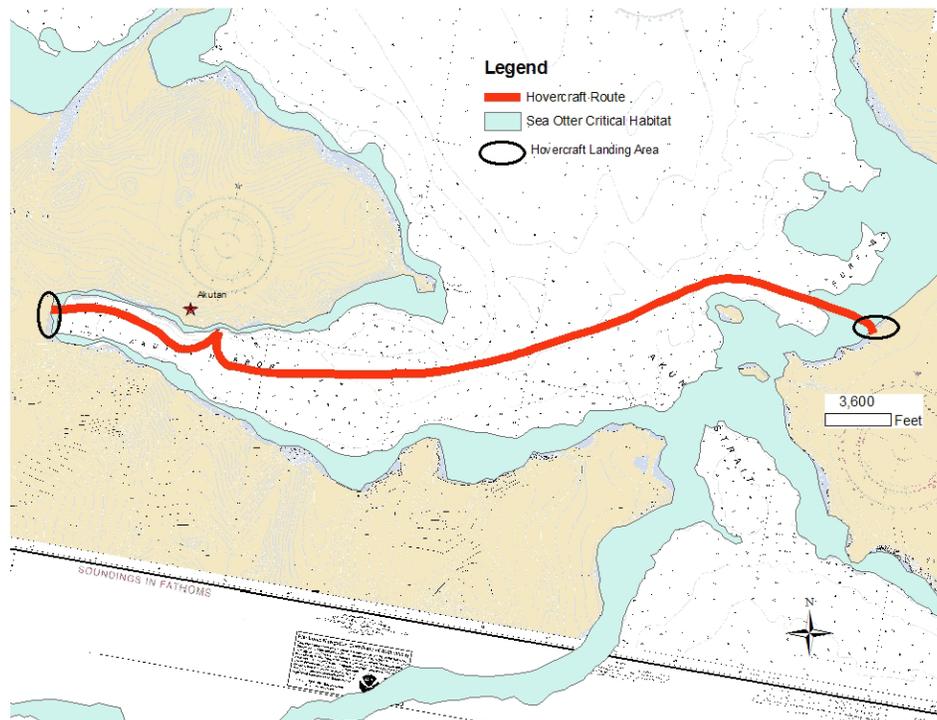


Figure 2. Akutan Airport hovercraft landing areas and travel route overlaid onto sea otter critical habitat.

Factors Affecting Species' Environment in the Action Area

Contaminant sampling of Akutan Harbor was undertaken by the U.S. Army Corps of Engineers (ACOE) in 2008 (U.S. Army Corps of Engineers 2009). Only Akutan Harbor (not Surf Bay) was sampled. Very low concentrations of numerous polycyclic aromatic hydrocarbon (PAH) compounds were detected in all sediment samples. A few low-molecular-weight PAHs (naphthalenes and phenanthrene) were detected in tissue samples of blue mussels (*Mytilus trossulus*). Low concentrations of mercury were detected in all sediment samples except the at the control site. However, mercury was detected in tissue samples of blue mussels from three of the six sites, including the control site. No PCBs were detected in any sample. These data suggest that while the habitat of Akutan Harbor may not be highly contaminated, sea otters may be chronically exposed to PAHs and mercury.

EFFECTS OF THE ACTION

“Effects of the action” refers to the direct and indirect effects of the action on the species or its critical habitat. The effects of the action will be evaluated together with the effects of other activities that are interrelated or interdependent with the action. These effects will then be added to the environmental baseline in determining the proposed action’s effects upon the species or its critical habitat (50 CFR Part 402.02). Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur.

Temporal and Spatial Overlap

Repeated surveys validate that northern sea otters forage and loaf within the action area year round, and continual presence of adults with pups (HDR Alaska, Inc. 2006) suggests fidelity to this site by breeding otters. Twenty-two sea otters are expected to occur in the action area of the hovercraft (HDR Alaska, Inc. 2006b, Federal Register: June 8, 2010, Volume 75, Number 109).

Nature and Duration of Effects

Potential direct and indirect effects of the proposed action considered in the BiOp (U.S. Fish and Wildlife Service 2007) included: direct and permanent loss of habitat, displacement from foraging and resting habitat through disturbance, degradation of foraging habitat and reduced survivorship due to exposure to petroleum compounds, and injury or mortality resulting from collisions with vessels or infrastructure associated with the airport. This amendment focuses on effects of the actions on critical habitat, and disturbance from the hovercraft and issuance of the associated IHA.

Disturbance Frequency, Intensity and Severity

An animal's response to anthropogenic noise is species-specific, and depends in part on an animal's hearing ability, which is often correlated with life history requirements (such as predator avoidance and reproduction), the acoustic background of its natural environment, and the type and persistence of the noise (Pepper et al. 2003, Goudie and Jones 2004, Southall et al. 2007). Traditional use of sound thresholds to determine disturbance levels for marine mammals may not indicate the probability of a significant behavioral response to chronic, non-pulse noise (Southall et al. 2007). Some animals have the ability to habituate to noise (Harms et al. 1997), while others may become even more sensitive (Fleming et al. 1996 as cited in Goudie and Jones 2004). Northern sea otters may habituate to the hovercraft operations, but intuitively it is clear that unavoidable disturbances will occur on a regular basis for short periods of time (10 minutes/one way route) each day.

Values for airborne noise generated by the BHT 130 (the hovercraft that will be used for the Akutan Airport Project) have been reported in A-weighted decibels (dBA), which is a relative sound value that is weighted for human sound frequency range. We report these measured values because it is the best available information for the specific type of hovercraft to be used in this project. However, we recognize that sound measurements reported in dBA may not encompass the full range of hearing for sea otters. Regardless, the reported values indicate that from a distance of 300 feet approaching and 600 feet departing, above-water noise from the hovercraft operation would be above 70 dBA for approximately 2-5 minutes (HDR Alaska, Inc. 2006). The hovercraft is expected to make one or two round trips each day, 7 days per week, from Akutan Harbor to Surf Bay on Akun Island.

The severity of disturbance must be related to its effect on a species recovery rate. Any disturbance event that affects the species' ability to recover through decreased survivorship or reproductive potential would be considered severe. Northern sea otters show high site fidelity (Kenyon 1981). An individual's fidelity to a particular habitat or location can influence its response to sound disturbance (Southall et al. 2007). Such life history characteristics place sea otters at increased risk of disturbance where their habitat and industrial developments overlap.

Analyses for Effects of the Action

This section analyzes the direct and indirect effects of the proposed and all interrelated and interdependent actions identified in the Environmental Baseline section. This includes a discussion of any beneficial effects anticipated to occur as a result of the proposed action.

Direct Effects

Critical Habitat - Construction of the Surf Beach landing site will result in a permanent loss of an estimated 0.4 intertidal acres and about 0.01 subtidal acres of critical habitat. Construction at the head of Akutan Harbor will impact about 0.1 intertidal acres and about 0.6 subtidal acres. Surf Bay is relatively pristine foraging and resting habitat and is considered of higher value compared to the busy and polluted Akutan Harbor. Of the estimated 3017 acres of critical habitat within the action area, this project will result in the direct loss of less than 1% (i.e., 0.036%).

Indirect Effects

Disturbance - Because sea otters spend about 80% of their time at the sea surface, we believe they are more susceptible to airborne noise disturbances than other marine mammals. Ambient or normal baseline airborne noise levels have not been monitored, but are expected to be low due to the remote setting. Since the area is open and dominated by open water, there are few noise attenuating features, and noise is expected to carry well (HDR Alaska, Inc. 2006). Due to lack of specific information, we make the following assumptions:

- **Assumption:** Sea otter's hearing is within the same range as the most sensitive marine mammal measured.
Justification: Because neither sea otter hearing range nor their behavioral responses to noise have been measured, we use the precautionary principal and use the most conservative in-air and underwater thresholds that have been measured in pinnipeds.
- **Assumption:** The frequency of sound emitted by the BHT 130 hovercraft is within the range of frequencies heard by sea otters.
Justification: Pinnipeds hear in-air frequencies of 75 Hz to 30 kHz and underwater frequencies of 75 Hz to 75 kHz (Southall et al. 2007). The frequency of sound associated with the thrust propeller of the Griffon 2000TD was near 87 Hz (Blackwell and Green 2005). No sound frequency value was reported for the BHT 130, so we assume that the BHT 130 is similar to the Griffon 2000 TD (Blackwell and Green 2005).
- **Assumption:** Sound measurements made on the Griffon 2000 TD are comparable to the BHT 130.
Justification: The Griffon 2000TD is a slower, smaller ship than the BHT 130 (39 ft and 35 knots versus 95 ft and 60 knots, respectively) with a smaller horsepower (HP) engine (355 HP versus 2,600 HP, respectively). Still, sound measurements made on the Griffon 2000TD are valuable, and no such measurements are available for the BHT 130.

Construction: During construction seasons, there will be a large amount of activity in the action area. Crews will be operating vessels and land-based construction equipment, and they will be working on the beaches where the proposed landing platforms will be constructed. Combined, these activities will cause a significant increase in noise in the vicinity of sea otters (estimated airborne noise levels are reportedly 97 dBs; HDR Alaska, Inc 2006). Noise disturbance has the

potential to frighten sea otters from the area, or perhaps make them wary and less attentive to natural predators such as killer whales.

Noise from construction is expected to be audible to sea otters at a distance up to 2.4 miles (3,901 meters) from the source, but is not expected to be acute or very loud at any one moment (i.e., non-pulsing; HDR Alaska, Inc. 2006). Based on the distribution of sea otters (as reported in survey data), an average of one per day (range one to three otters/day) is expected to be exposed to noise from construction (Alaska Department of Transportation 2009).

Hovercraft: No injury threshold is available for sea otters and their sensitivity to underwater or in-air noise levels. In-air disturbance levels for harbor seals are believed to be in the range of 80-110 dB re: 20 μ P (Southall et al. 2007). Underwater, a threshold of 120-160 dB re: 1 μ P is considered harmful to pinnipeds. A study of hovercraft noise emitted from a Griffon 2000TD model measured airborne noise as the ship was approaching and retreating from a stationary platform (Blackwell and Green 2005). Maximum noise measurements taken of the Griffon 2000TD from 6.5 meters away ranged from 97-104 dB re: 20 μ P. The maximum underwater sound measurements taken of the Griffon 2000TD at 6.5 meters were 122.5-130.9 dB re: 1 μ P. At a shallower depth (1 meter), noise was measured at 133 dB re: 1 μ P (Blackwell and Greene 2005). Underwater, the BHT 130 passing at approximately 33 meters away would be expected to produce sound at 123 dB at 23 meters water depth (HDR Alaska, Inc. 2006). At 3,901 meters, the projected underwater noise level will be 100 dB (HDR Alaska, Inc. 2006; reported value assumed as un-weighted re: 1 μ P).

Of the 22 sea otters that may potentially be exposed to noise from the hovercraft each year (HDR Alaska, Inc. 2006b, Federal Register: June 8, 2010 (Volume 75, Number 109), it is estimated that three sea otters (range 0-10 otters) will be disturbed per hovercraft transit (Alaska Department of Transportation 2009). Assuming four transits per day, an average of 12 sea otter disturbance events are expected daily.

Sea otters may eventually habituate to the noise emitted by the hovercraft (Southall et al. 2007). However, at least initially we expect the noise and visual presence of the hovercraft to disturb northern sea otters in Akutan Harbor, along the proposed hovercraft route, and in Surf Bay. We cite observations that were previously gathered within the Action Area as evidence to draw this conclusion. Previous observations of sea otters along Akutan Harbor's north shore indicate that feeding sea otters are easily disturbed by human presence along the shoreline (U.S. Army Corps of Engineers 2004). While the proposed hovercraft route avoids most of the nearshore waters in Akutan Harbor and avoids the kelp beds near Green Island and Surf Bay, the level of noise, the visual stimuli, the perception that the noise is inbound, and speed of onset of the noise could produce initial and residual responses that are harmful (Fair and Becker 2000, Frid and Dill 2002, Pepper et al. 2003, Goudie and Jones 2004, Southall et al. 2007).

When disturbed by noise, animals may respond behaviorally (e.g., escape response) or physiologically (e.g., increased heart rate, hormonal response; Harms et al. 1997, Tempel and Gutierrez 2003). Either response results in a diversion from one biological activity to another. That diversion may cause stress (Goudie and Jones 2004), and it redirects energy away from fitness-enhancing activities such as feeding and mating (Frid and Dill 2002). Other changes in

activities as a result of anthropogenic noise can include: increased alertness, vigilance, agonistic behavior, escape-behavior, temporary or permanent abandonment of an area, weakened reflexes, and lowered learning responses (Welch and Welch 1970, van Polanen Petel et al. 2006). Chronic stress, caused by noise, can lead to loss of immune function, decreased body weight, impaired reproductive function, and abnormal thyroid function (Seyle 1979).

Response to noise disturbance is considered a nonlethal stimulus that is similar to antipredator response (Frid and Dill 2002). Prey species may respond to threatening stimuli, such as loud noises and rapidly approaching objects, similar to their evolutionary response to predators. Although the corresponding flight response or increased vigilance response is non-lethal, a tradeoff between risk avoidance and energy conservation occurs. This tradeoff could lead to reduced survival and reproduction (Gill and Sutherland 2000, Frid and Dill 2002). Because a potential cause for the southwest Alaska DPS of northern sea otter decline may be increased predation from killer whales, it seems plausible that sea otters may be evolutionarily predisposed to eliciting strong antipredator-type responses to perceived threats.

Species' Responses to Proposed Action

Numbers of Individuals in the Action Area Affected

An estimated 22 sea otters from the listed DPS are expected to be harmed by disturbance from noise emitted during airport construction and hovercraft operation.

Critical Habitat in the Action Area Affected

An estimated 1.1 acres of critical habitat will be permanently destroyed as a result of this action. The estimated 1.1 acres that will be destroyed constitutes 0.036% of the 3,017 acres of critical habitat within the Action Area and 2.9×10^{-7} % of the 3,747,200 acres of critical habitat state-wide. Estimated home ranges for sea otters are highly variable (Lensink 1962, Kenyon 1969, Riedman and Estes 1990, Estes and Tinker 1996) and a sea otter's high metabolic rate requires it to have access to large amounts of food (Riedman and Estes 1990). The lost habitat at Surf Bay, which is considered more valuable than the habitat in Akutan Harbor, comprises less than half of the total destroyed habitat. We conclude that the loss of critical habitat will result in non-significant adverse affects to an individual sea otter, and will thus fall well short of adverse modification of designated southwest Alaska DPS of northern sea otter critical habitat, overall.

Sensitivity to Change

Northern sea otters' behaviors change with changing environmental conditions. They have been observed foraging in close proximity to human structures, including docks and habitation. We do not know if total abandonment of Surf Bay and other habitats within the action area will occur, but anticipate some level of disturbance due to construction and hovercraft noise associated with the proposed project.

Resilience

Little information exists regarding the resilience of sea otters to perturbations. The southwest Alaska DPS of northern sea otter once contained more than half of the world's sea otters, but has undergone an overall population decline of at least 55–67 percent since the mid-1980s. In some areas within southwest Alaska, the population has declined by over 90 percent during this time

period (U.S. Fish and Wildlife Service 2005). The cause for the precipitous decline, and therefore resiliency to perturbations, is unclear.

Recovery Rate

The history of sea otters in southwest Alaska is one of commercial exploitation to near extinction (1742 to 1911), protection under the International Fur Seal Treaty (1911), and population recovery (post-1911). By the mid-to late-1980s, sea otters in southwest Alaska had grown in numbers and re-colonized much of their former range (U.S. Fish and Wildlife Service 2005). The recovery of sea otters following the cessation of commercial hunting demonstrated that the species has the potential for recovery once the cause of its decline has been removed. As the cause of the current decline is not known with certainty, the future recovery of the southwest Alaska DPS of the northern sea otter is likewise uncertain (U.S. Fish and Wildlife Service 2005).

CONCLUSION

This amendment to the BiOp (U.S. Fish and Wildlife Service 2007) assesses the direct and indirect effects of the construction of a new airport on Akun Island upon northern sea otters and their critical habitat. It also includes the consideration of effects resulting from the authorization of an IHA under the MMPA, which is a necessary step when issuing an ITS for marine mammals that are also protected by the ESA.

Based on our analyses, the FWS determines whether this proposed action is likely to jeopardize the continued existence of this species, or destroy or adversely modify designated critical habitat. A conclusion of “jeopardy” for an action means that the action could reasonably be expected to reduce appreciably the likelihood of both the survival and recovery of the southwest DPS of northern sea otter. A conclusion of “adverse modification” means that the action could reasonably be expected to appreciably diminish the value of critical habitat for both the survival and recovery of this species. These conclusions are based on a synthesis of information provided in previous sections of this document together with the BiOp (U.S. Fish and Wildlife Service 2007).

The current estimate for the size of the southwest Alaska population is approximately 48,000 individuals (U.S. Fish and Wildlife Service 2008). An estimated 8,700 sea otters occur in the Aleutian Islands (Doroff et al. 2003). Therefore, the number of northern sea otters that could potentially be taken by harassment in association with the proposed activity is estimated to be 0.25% of the total estimated Aleutian Island population and 0.04% of the entire listed population. Because of the 1) small proportion of listed sea otters being taken through harassment, and 2) possibility that the animals may habituate to the disturbance over time, the FWS believes that construction of the airport, operation of the hovercraft, and issuance of an IHA under the MMPA will not jeopardize the continued existence of the southwest Alaska DPS of northern sea otter.

Permanent loss of critical habitat will result from the construction of the hovercraft landing areas in Akutan Harbor and Surf Bay. The estimated 1.1 acres that will be destroyed constitutes 0.36% of the 3,017 acres of critical habitat within the Action Area and 2.9×10^{-7} % of the 3,747,200 acres of critical habitat state-wide. This magnitude of lost critical habitat is not expected to appreciably diminish the value of critical habitat for both the survival and recovery of this species.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. "Harass" is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. "Incidental take" is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be undertaken by the FAA so that they become binding conditions of any grant or permit issued, as appropriate, for the exemption in section 7(o)(2) to apply. The FAA has a continuing duty to regulate the activity covered by this incidental take statement. If the FAA (1) fails to assume and implement the terms and conditions or (2) fails to require any applicant to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit or grant document, the protective coverage of section 7(a)(2) may lapse. In order to monitor the impact of incidental take, the FAA, or any applicant, must report the progress of the action and its impact on the species to the FWS as specified in the incidental take statement [50 CFR 402.14(i)(3)].

Amount or Extent of Take

Issuance of the IHA will authorize take by harassment of small numbers of northern sea otters as a result of the construction and operation of a new airport on Akun Island. Because as many as 22 sea otters were observed within the action area of the hovercraft during a survey in 2006, we estimate that 22 northern sea otters per year will be disturbed by the hovercraft (HDR Alaska, Inc 2006; Federal Register: June 8, 2010, Volume 75, Number 109). This take is considered non-lethal, but due to reduced foraging efficiency and increased stress, is expected to result in harm.

Over the life of the project, we anticipate the non-lethal take of 22 individuals per year from the southwest DPS of northern sea otter.

Effect of Take

An estimated 22 sea otters per year will be disturbed by the operation of the hovercraft or the construction of the airport. Approximately 1.1 acres of tidal and intertidal sea otter critical habitat will be permanently destroyed. It is possible that the adverse effects of disturbance will result in reduced fitness of individual animals or abandonment of the remaining habitat within the hovercraft noise buffer, but it is also possible that the animals will habituate to the disturbance over time.

Reasonable and Prudent Measures

The FWS believes the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of sea otters:

1. The FAA and/or the project sponsor shall ensure that impacts to sea otters are minimized during operation of the hovercraft.
2. The FAA and/or the project sponsor shall ensure that the impacts of hovercraft operation on sea otters are minimized.

Terms and Conditions

In order to be exempt from the prohibitions of section 9 of the ESA, the FAA and/or the project sponsor must comply with the following terms and conditions, which implement the reasonable and prudent measures that are described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

1. The following terms and conditions shall implement Reasonable and Prudent Measure No.1. “The FAA and/or the project sponsor shall ensure that impacts to sea otters during operation of the hovercraft are minimized.”
 - 1.1. The hovercraft will be operated pursuant to a Route Operational Manual, which will dictate the avoidance of sensitive areas and species.
 - 1.1.a. The FAA and/or the project sponsor shall ensure that an initial Route Operational Manual is completed prior to initial operation of the hovercraft;
 - 1.1.b. The FAA and/or the project sponsor shall ensure hovercraft routes and operational procedures are developed that avoid and minimize the likelihood of northern sea otter disturbance;
 - 1.1.c. The FAA and/or the project sponsor shall ensure that the Route Operational Manual is developed in consultation with the FWS;
 - 1.1.d. The FAA and/or the project sponsor shall ensure that the Route Operational Manual has FWS approval prior to initiation of hovercraft operation;
 - 1.1.e. The FAA and/or the project sponsor shall ensure operator compliance with the Route Operational Manual;
 - 1.1.f. The FAA and/or the project sponsor shall ensure that the Route Operational Manual provides a clearly written protocol that all hovercraft operators will be required to follow;
 - 1.1.g. The FAA and/or the project sponsor shall submit a draft initial Route Operation Manual to the FWS for review and approval at least 30 days prior to commencing hovercraft trials;
 - 1.1.h. The FAA and/or the project sponsor shall ensure that Northern Sea Otter Avoidance Areas are established. These avoidance areas will serve to help delineate areas of likely northern sea otter occurrence within the hovercraft operations route. Northern Sea Otter Avoidance Areas should be established in consultation with the FWS;
 - 1.1.i. The FAA and/or the project sponsor shall ensure that hovercraft speed and course alteration procedures are established to protect northern sea otter. These procedures shall be included in the Route Operational Manual and

the development of the procedures should occur in consultation with the FWS;

- 1.1.j. Northern sea otter activities and movements relative to the hovercraft will be closely monitored to ensure that an animal does not (1) travel within a set distance of a departing hovercraft or (2) travel within a set distance of an approaching hovercraft (the “potential disturbance area” or “PDA” to be established in consultation with the FWS). If either of these events should occur, the FAA and/or the project sponsor shall ensure that further mitigation measures are taken (e.g., further course alterations or power down);
- 1.1.k. The FAA and/or the project sponsor shall ensure that safe power-down procedures are developed to protect northern sea otters. Power-down procedures, involving decreasing the speed of the hovercraft, will occur when a northern sea otter is detected (1) within a set distance of a departing hovercraft or (2) within a set distance of an approaching hovercraft (distances to be established in consultation with the FWS), and the vessel’s course or speed cannot be changed to avoid having the animal enter the PDA, then the hovercraft will, consistent with applicable design and operational requirements, decrease its speed to the slowest practicable speed before the animal enters the PDA;
- 1.1.l. The FAA and/or the project sponsor shall ensure that ramp-up procedures will be implemented when starting up the hovercraft, to provide additional protection to northern sea otters located near hovercraft landing areas
- 1.1.m. The FAA and/or the project sponsor shall ensure that all fueling and hovercraft maintenance activities will be conducted at least 100 feet away from the shoreline at high tide at Akutan Harbor and Surf Bay, and fuel storage will be at least 100 feet away from the shoreline at Akutan Harbor and Surf Bay.
- 1.2. The FAA and/or the project sponsor shall ensure that all hovercraft maintenance activities will occur in the hovercraft storage building or on the hovercraft landing.

2. The following terms and conditions shall implement Reasonable and Prudent Measure No.2. “The FAA and/or the project sponsor shall ensure that the impacts of hovercraft operation on sea otters are monitored.”

2.1. The FAA and/or the project sponsor shall ensure that a monitoring study aboard the hovercraft during initial trial operations is implemented. Vessel-based monitoring will be conducted by a qualified FWS-approved observer as described in the IHA (Federal Register: June 8, 2010, Volume 75, Number 109). Methods must be approved by the FWS.

2.2. The FAA and/or the project sponsor shall ensure that baseline skiff surveys are conducted in April of the year that construction begins. These surveys will document pre-activity distribution and abundance of sea otters in the project area prior to the start of construction. Survey methods shall be approved by the FWS.

2.2.a. A minimum of three, skiff-based, line transect surveys will be conducted during each survey event.

2.2.b. A survey will be conducted each April during the construction phase of the project and the April after construction is completed to document distribution and abundance after each construction year.

2.3. Reporting of monitoring activities described in 2.1 and 2.2, above, will be faxed or e-mailed to the FWS on a quarterly basis.

Reinitiation Notice

This concludes formal consultation on the proposed action. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not considered in this biological opinion; (3) the action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this biological opinion; (4) any of the non-discretionary Terms and Conditions are not implemented in a timely manner and completed by the deadlines set forth; or (5) a new species not covered by this opinion is listed or critical habitat designated that may be affected by this action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take should cease pending reinitiation.

Reinitiation is **not required** for future renewals of the IHA for construction and operation of the Akutan airport project if all the following conditions apply:

1. All changes and new terms and conditions are clearly identified in the IHA;
2. An existing valid IHA is maintained;
3. The terms of the proposed IHA renewal do not authorize additional harm to sea otters or sea otter habitat and do not result in increased amounts of take.

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