FINAL FINDING OF NO SIGNIFICANT IMPACT

FOR

LONG RANGE STRIKE WEAPON SYSTEMS EVALUTION PROGRAM AT THE PACIFIC MISSILE RANGE FACILITY, KAUAI, HAWAII

Contract No. W912BU-12-D-0027
Task Order No. CK02

This finding, and the analysis upon which it is based, was prepared pursuant to the President's Council on Environmental Quality (CEQ) regulations for implementing the procedural provisions of the National Environmental Policy Act (NEPA) and its implementing regulations as promulgated at 40 Code of Federal Regulations (CFR) Part 1500 (40 CFR 1500–1508), as well as the U.S. Air Force Environmental Impact Analysis Process as promulgated at 32 CFR Part 989.

The Department of the Air Force has conducted an Environmental Assessment/Overseas Environmental Assessment (EA/OEA) of the potential environmental consequences associated with the conduct of live ordnance testing in the Pacific Ocean as part of the 86th Fighter Weapons Squadron (86 FWS) Long Range Strike Weapon Systems Evaluation Program (WSEP). That EA/OEA (October 2016) is hereby incorporated by reference into this finding.

PURPOSE AND NEED (EA/OEA Section 1.3, page 1-4)

The purpose of the Proposed Action is to authorize the 86 FWS to conduct operational evaluations of long range strike weapons and other munitions as part of Long Range Strike WSEP operations. Weapons include the Joint Air-to-Surface Stand-Off Missile (JASSM), JASSM-Extended Range (JASSM-ER), Small Diameter Bomb-I/II (SDB-I/II), High-Speed Anti-Radiation Missile (HARM), Joint Direct Attack Munition (JDAM), Laser JDAM (LJDAM), Miniature Air Launched Decoy (MALD), and MALD-Jamming (MALD-J). As a military readiness activity, units that participate in WSEP activities are provided a final opportunity to shoot actual weapons before deploying into combat.

The need for the Proposed Action is to properly train units to execute requirements within Designed Operational Capability Statements, which describe units' real-world operational expectations in a time of war. The munitions associated with the Proposed Action are not part of a unit's typical training allocations, and without WSEP operations, pilots would be dropping these weapons for the first time in combat.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

Proposed Action (EA/OEA Section 2.1, page 2-1)

The Proposed Action is to authorize the 86 FWS to conduct operational evaluations of long range strike weapons in a location with adequate test capacity and instrumentation to track full-scale maneuvers and long flight paths of these weapons and contain large safety footprints. This

program, referred to as Long Range Strike WSEP, would primarily employ live long range strike weapon systems, along with other live and inert munitions from various aircraft, including bombers and fighter aircraft. No land-based operations or construction activities are associated with the Proposed Action. Operations would be conducted in accordance with approved aircraft and weapons standard operating procedures and instructions. Live weapons evaluations would include two fusing options: detonation at the water surface and below the water surface.

No Action Alternative (EA/OEA Section 2.2.1, page 2-6)

Under the No Action Alternative, Long Range Strike WSEP missions would not occur at the Pacific Missile Range Facility (PMRF), Kauai, Hawaii. The program would not achieve objectives to evaluate air-to-ground and maritime weapon employment data; evaluate tactics, techniques, and procedures in an operationally realistic environment; or determine the impact of tactics, techniques, and procedures on combat Air Force training.

Alternative 1: (Preferred Alternative) (EA/OEA Section 2.2.2, page 2-6)

Fusing options for munitions have varying implications, as they will determine where detonations will occur and how resources will be impacted. Detonation scenarios that correspond to each fusing option (i.e., height of burst, point detonation, and time-delayed fusing) are airburst, surface, and subsurface detonations, which would result in varying levels of underwater sound intensity. A subsurface detonation would generate the most underwater sound and pressure, thereby resulting in greater acoustic impacts to marine resources. Under Alternative 1 (Preferred Alternative), the 86 FWS would employ weapons under all possible fusing options and detonation scenarios and provide the necessary level of evaluation to include a sufficient number of replicate operations for an acceptable statistical confidence level regarding munitions capabilities. While Long Range Strike WSEP objectives require the evaluation of multiple munitions, immediate evaluations of JASSM/JASSM-ER and SDB-I are needed for 2016; therefore, only one JASSM/JASSM-ER and eight SDB-I munitions would be released during October 2016 missions. All releases would result in surface detonations and would occur on the same mission day, with one weather back-up day. The weapon impact point is 44 nautical miles offshore of Kauai within the northern portion of the Barking Sands Underwater Range Extension (BSURE) area. No targets would be used. Weapon performance would be scored with the BSURE underwater hydrophone system.

Evaluations in follow-on years (2017–2021) would be conducted in the same location offshore of Kauai and would add evaluations of 10 HARM, 30 SDB-II, 30 JDAM/LJDAM, and four MALD/MALD-J, along with six JASSM/JASSM-ER and 30 SDB-I, annually. Missions proposed for 2017–2021 would occur once a year over five consecutive days. All JDAM/LJDAM releases would use a delayed fusing option (10-millisecond delay), resulting in subsurface detonations occurring approximately 10 feet below the water surface. All other live weapons would detonate at the water surface upon impact.

Alternative 2: (EA/OEA Section 2.2.3, page 2-9)

Alternative 2 would authorize the release of the same number of munitions at the same location as proposed under Alternative 1 (Preferred Alternative). However fusing options would not include

a 10-millisecond time delay for JDAM/LJDAMs, which would result in surface detonations as opposed to subsurface detonations.

ENVIRONMENTAL IMPACTS

Analysis was conducted to determine the potential impacts to the human and natural environment resulting from the No Action Alternative, Alternative 1 (Preferred Alternative), and Alternative 2. No significant impacts to resources have been identified (EA/OEA Chapter 3, pages 3-1 to 3-124). In addition, there would be no significant cumulative impacts caused by implementation of Alternative 1 (Preferred Alternative) when combined with other past, present, and reasonably foreseeable actions that could affect air quality, noise impacts to the public, airspace, public safety, socioeconomics, cultural resources, physical resources, and biological resources (EA/OEA Chapter 4, pages 4-1 to 4-4).

Air Quality (EA/OEA Section 3.1.3, pages 3-4 to 3-6) – There would be no significant impacts to air quality under any of the alternatives. Based on air emissions modeling and analysis, the Preferred Alternative would not be expected to result in any significant increase in air emissions. Furthermore, given the distance from shore where most activities associated with the Preferred Alternative would occur, the variable wind patterns combined with fractional increases in emissions and high potential for pollutant disbursement makes the possibility for adverse impacts to onshore air quality very unlikely.

In-Air Noise Impacts to the Public (EA/OEA Section 3.2.3, pages 3-8 to 3-10) – There would be no impacts to the public from in-air noise. Noise levels that exceed criteria and thresholds for pain and annoyance to the public would not reach populated areas on land. Additionally, the safety hazard area, established for the protection of the public, including those participating in maritime transportation and commercial and recreational fishing, would prevent exposure to the noise levels that correspond with the threshold of pain to the public.

Airspace (EA/OEA Section 3.3.3, pages 3-11 to 3-13) – There would be no significant impacts to airspace utilization and capacity. The relatively small number of operations proposed on an annual basis is not anticipated to stress the airspace/range capacity at PMRF. The proponent would coordinate with the appropriate point of contact when scheduling specific airspace units.

Public Safety (EA/OEA Section 3.4.3, pages 3-14 to 3-15) – There would be no significant impacts under any of the alternatives with regard to public safety. Safety measures proposed for Long Range Strike WSEP missions have been implemented and effective for other similar missions at PMRF for years without incident. These safety measures and range clearance procedures would be observed to ensure safety of the public.

Socioeconomics (EA/OEA Section 3.5.3, pages 3-18 to 3-19) – There would be no significant impacts to socioeconomics under the Preferred Alternative. Periodic closure of portions of the Pacific Ocean could potentially impact the availability of these areas for commercial and recreational activities, including commercial and recreational fishing and vessel traffic, whale watching, and scientific research. The PMRF Control Officer is responsible for submitting Notices to Airmen (NOTAMs) and Notices to Mariners (NOTMARs) to be published by the Federal

Aviation Administration and the U.S. Coast Guard, respectively, for one week prior to mission activities. The local NOTAMs and NOTMARs and would provide notice to aircraft, commercial ship operators, commercial fisherman, recreational boaters, and other users that the military will be operating in a specific area for a given timeframe. This allows other aircraft and vessel operators to plan activities accordingly and avoid the corresponding areas until mission activities are completed. Closed areas in the Pacific Ocean would not approach closer than 10 nautical miles from shore. The proximity of tourist activities near shore provides less incentive for recreational boaters and fishermen to travel to offshore distances in the Pacific Ocean.

Cultural Resources (EA/OEA Section 3.6.3, page 3-23) – No impacts to cultural resources would occur under the Preferred Alternative. Underwater detonations are not proposed within U.S. territorial waters, and no world heritage sites would be affected. No deep sea shipwrecks or cultural features have been identified within the area of potential effects for Long Range Strike WSEP missions. It is also highly unlikely that military expended materials or unexploded ordnance could sink and directly impact sediments on or near cultural resources or affect any shipwrecks. The Air Force presented a letter to the Hawaii State Historic Preservation Officer (SHPO) on March 30, 2016, with a finding of No Effect on Historic Properties, as defined in 36 CFR 800.16(i). The Air Force provided documentation of this finding to the SHPO, as required by 36 CFR 800.11(d). The Hawaii SHPO concurred with this finding of No Effect on Historic Properties in a letter dated April 20, 2016.

Physical Resources (EA/OEA Section 3.7.3, pages 3-24 to 3-26) – There would be no significant impacts to physical resources from the Preferred Alternative. Metals associated with weapons and other explosive byproducts that would be introduced into the water column would be quickly dispersed by waves, currents, and tidal action and would eventually be distributed throughout the surrounding open ocean waters. Explosive material that is not consumed in a detonation could sink to the substrate and bind to sediments. However, the quantity of such materials is expected to be inconsequential. Direct physical impacts to the seafloor could occur due to military expended materials and detonation shock waves. Calculations of the maximum radius of a gas bubble from the most impactful detonation scenario proposed under Long Range Strike WSEP missions indicate that the explosive bubble radius would not extend to the seafloor and, thus, would not cause sediment displacement or cratering. Additionally, adverse impacts to water resources from fuel releases are not anticipated.

Biological Resources (EA/OEA Section 3.8.3, pages 3-95 to 3-124) – There would be no significant impacts to biological resources under the Preferred Alternative. Marine mammals and sea turtles could be exposed to noise or pressure levels resulting in mortality, injury, or harassment. Given the differences between the level of intensity between 2016 missions and 2017–2021 missions, each mission set was analyzed separately for impacts to biological resources and separate consultations were conducted with the National Marine Fisheries Service (NMFS). As a result, the 86 FWS received an Incidental Harassment Authorization (IHA) for 2016 missions on September 27, 2016, under the Marine Mammal Protection Act (MMPA). The authorization is valid from October 1, 2016, through November 30, 2016. In addition, a Biological Opinion/Incidental Take Statement under the Endangered Species Act (ESA) was issued on September 29, 2016, for October 2016 missions. NMFS concurred with the Air Force determinations that ESA-listed marine mammals are not likely to be adversely affected by the

Preferred Alternative (Consultation Number FPR-2016-9160). In the Biological Opinion, NMFS concluded that Long Range Strike WSEP 2016 missions are not likely to adversely affect hawksbill, loggerhead, olive ridley, and leatherback sea turtles. NMFS also concluded that Long Range Strike WSEP 2016 missions are likely to adversely affect, but are not likely to jeopardize, the continued existence of the Central North Pacific distinct population segment of green sea turtles. Mitigation measures associated with the MMPA and ESA consultations are identified below. A separate request for a Letter of Authorization under the MMPA and a Programmatic Biological Assessment under the ESA were also submitted to NMFS for 2017–2021 missions. Completion of these consultations is required prior to the 86 FWS conducting missions in 2017. The resulting mitigation measures for 2017–2021 missions are expected to be similar to what is required for 2016 missions. Marine fish may be injured or killed by detonations, but the number is expected to be negligible relative to overall populations. Detonations would not significantly affect benthic communities. Known hardbottom habitats and artificial reefs would be avoided. Essential fish habitat would not be significantly impacted. No impacts to marine birds, including ESA-listed and migratory species, are expected.

MANAGEMENT PRACTICES (EA/OEA Section 5.0, pages 5-1 to 5-2)

No special operating procedures or mitigations would be required to mitigate impacts to resource areas, except for biological resources. Management practices applicable to biological resources consist of mitigation measures required by NMFS as a result of consultations under the ESA and MMPA.

Mitigation Measures for Protected Marine Species

For marine mammals protected under the MMPA:

- If marine mammals are detected during pre-mission surveys, all activities shall be delayed until the marine mammals are determined to have left the area or 30 minutes have passed without redetection of the animal.

- Monitoring:

    - The 86 FWS will track their use of the PMRF BSURE area for Long Range Strike WSEP missions and marine mammal observations through the use of mission reporting forms.

    - Aerial surveys: Pre- and post-mission surveys shall be conducted. Pre-mission surveys would begin approximately one hour prior to detonation. Post-detonation monitoring surveys will commence once the mission has ended and as soon as personnel declare the mission area safe.

    - The required monitoring area shall be approximately 2 nautical miles (3,704 meters) from the target area radius around the impact point, with surveys flown in a star pattern. Aerial surveys shall be conducted at an altitude of approximately 200 feet. If adverse weather conditions preclude the ability for aircraft to safely operate, missions must either be delayed until the weather clears

or canceled for the day. The observers shall be provided with the GPS location of the impact area. Once the aircraft reaches the impact area, pre-mission surveys shall last for 30 minutes. The aircraft shall fly the survey pattern multiple times.

- Reporting:
  - The 86 FWS is required to submit a draft report on all monitoring conducted under the IHA within 90 days of the completion of marine mammal monitoring, or 60 days prior to the issuance of any subsequent IHA for projects at PMRF, whichever comes first. A final report shall be prepared and submitted within 30 days following resolution of comments on the draft report from NMFS. This report must include:
    - Date and time of each Long Range Strike WSEP mission
    - A complete description of the pre-exercise and post-exercise activities related to mitigating and monitoring the effects of Long Range Strike WSEP missions on marine mammal populations
    - Results of the monitoring program, including numbers by species/stock of any marine mammals noted injured or killed as a result of the Long Range Strike WSEP mission and number of marine mammals (by species if possible) that may have been harassed due to presence within the zone of influence
  - The draft report will be subject to review and comment by NMFS. Any recommendations made by NMFS must be addressed in the final report prior to acceptance by NMFS. The draft report will be considered the final report for this activity under the IHA if NMFS has not provided comments and recommendations within 90 days of receipt of the draft report.
- Reporting injured or dead marine mammals:
  - In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the IHA, such as an injury for species not authorized (Level A harassment), serious injury, or mortality, 86 FWS shall immediately cease the specified activities and report the incident to the Office of Protected Resources, NMFS, 301-427-8496, and the Pacific Islands Regional Stranding Coordinator, NMFS, 808-354-2956. The report must include the following information:
    - Time and date of the incident
    - Description of the incident
    - Environmental conditions (e.g., wind speed and direction, Beaufort sea state, cloud cover, and visibility)
    - Description of all marine mammal observations in the 24 hours preceding the incident
    - Species identification or description of the animal(s) involved
    - Fate of the animal(s)
    - Photographs or video footage of the animal(s)

- Activities shall not resume until NMFS is able to review the circumstances of the prohibited take. NMFS will work with 86 FWS to determine what measures are necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. 86 FWS may not resume their activities until notified by NMFS.
- In the event that 86 FWS discovers an injured or dead marine mammal, and the lead observer determines that the cause of the injury or death is unknown and the death is relatively recent (e.g., in less than a moderate state of decomposition), 86 FWS shall immediately report the incident to the Office of Protected Resources, NMFS, and the Pacific Islands Regional Stranding Coordinator, NMFS. The report must include the same information identified above. Activities may continue while NMFS reviews the circumstances of the incident. NMFS will work with 86 FWS to determine whether additional mitigation measures or modifications to the activities are appropriate.
- In the event that 86 FWS discovers an injured or dead marine mammal, and the lead observer determines that the injury or death is not associated with or related to the activities authorized in the IHA (e.g., previously wounded animal, carcass with moderate to advanced decomposition, scavenger damage), 86 FWS shall report the incident to the Office of Protected Resources, NMFS, and the Pacific Islands Regional Stranding Coordinator, NMFS, within 24 hours of the discovery. 86 FWS shall provide photographs or video footage or other documentation of the stranded animal sighting to NMFS.

- Additional conditions:
  - The 86 FWS must inform the Office of Protected Resources of NMFS (301-427-8496) prior to the initiation of any changes to the monitoring plan for a specified mission activity.
  - A copy of the IHA must be in the possession of the safety officer on duty when Long Range Strike WSEP missions are conducted.
  - The IHA may be modified, suspended, or withdrawn if the 86 FWS fails to abide by the conditions prescribed herein or if NMFS determines the authorized taking is having more than a negligible impact on the species or stock of affected marine mammals.

For marine mammals and sea turtles protected under the ESA:

- The Air Force must implement all mitigation and monitoring measures as described in the Biological Assessment and Section 2.4 of the Biological Opinion.
- If a dead or injured marine mammal or sea turtle is observed during or following Long Range Strike WSEP activities, the Air Force shall immediately (within 24 hours of the discovery) contact NMFS and appropriate stranding networks.
- Within 120 days following completion of Long Range Strike WSEP mission activities, the Air Force shall submit a report to NMFS containing the following information:
  - Date and time of Long Range Strike WSEP missions

- A complete description of the pre-mission and post-mission activities related to mitigating and monitoring the effects of Long Range Strike WSEP missions on marine mammals and sea turtles
- Results of the protected species monitoring including numbers (by species if possible) of any marine mammals or sea turtles noted injured or killed as a result of Long Range Strike WSEP missions and the number of marine mammals or sea turtles (by species if possible) that may have been harassed due to presence within the zone of influence

PUBLIC NOTIFICATION

A public notice was published in two newspapers for two days; *The Garden Island* and the *Honolulu Star Advertiser* on July 27, 2016, and July 30, 2016 inviting the public to review and comment on the Draft EA/OEA and Draft Finding of No Significant Impact (FONSI). The public comment period closed on August 26, 2016, and no public comments were received.

FINDING OF NO SIGNIFICANT IMPACT

Based on my review of the facts and analysis contained in the attached EA/OEA, conducted pursuant to the relevant requirements of NEPA (42 United States Code 4321 et. seq.), the CEQ NEPA implementing regulations (40 CFR 1508.13 et. seq.), and the Air Force Environmental Impact Analysis Process (32 CFR 989.15), and after careful review of the potential impacts, I conclude that implementation of 2016 mission activities under the Preferred Alternative (Alternative 1) will not result in significant impacts on the quality of the human or natural environment. Therefore, a FONSI is warranted, and an Environmental Impact Statement is not required for these actions. Upon completion of consultations for 2017–2021 missions and issuance of a Letter of Authorization under the MMPA and Programmatic Biological Opinion/Incidental Take Statement under the ESA, another review of the Preferred Alternative will be conducted with updated findings and conclusions. The signing of this FONSI does not authorize the execution of 2017–2021 Long Range Strike WSEP missions.

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Chief, Civil Engineer Division

4 October 2016

Date