

FINAL
FINDING OF NO SIGNIFICANT IMPACT / FINDING OF NO SIGNIFICANT HARM
SUPPLEMENTAL ENVIRONMENTAL ASSESSMENT / OVERSEAS ENVIRONMENTAL
ASSESSMENT
JOINT FLIGHT CAMPAIGN FLIGHT TESTS

AGENCY: Department of the Navy, Department of the Army

BACKGROUND: The Joint Flight Campaign (JFC) flight tests are sponsored by the Office of the Under Secretary of Defense for Research and Engineering, which has designated the Department of the Navy Strategic Systems Programs (SSP) as one of two lead agencies for the Proposed Action. The United States Department of the Army (U.S. Army) has designated the U.S. Army Rapid Capabilities and Critical Technologies Office (RCCTO) as the second lead agency. Together SSP and RCCTO form the joint Action Proponents for this Supplemental Environmental Assessment/Overseas Environmental Assessment (EA/OEA).

The Supplemental JFC EA/OEA provides additional analysis for new launch locations at the Pacific Missile Range Facility (PMRF) and the Pacific Spaceport Complex Alaska (PSCA) for up to six joint test operations per year until 2032, after the Finding of No Significant Impact / Finding of No Significant Harm is signed. The addition of the new launch locations in this Supplemental EA/OEA does not change the total number of flight tests analyzed in the 2022 JFC EA/OEA. The proposed JFC joint test operations evaluated in the Supplemental EA/OEA include the options to (1) launch from the Terminal High Altitude Area Defense (THAAD) launch pad at PMRF, (2) launch from PSCA, and (3) Pacific Broad Ocean Area (BOA) payload impact downrange of PSCA.

SSP, RCCTO, and the U.S. Army Space and Missile Defense Command have prepared this Supplemental EA/OEA in accordance with the National Environmental Policy Act (NEPA) (42 United States Code § 4321, as amended), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (Title 40 Code of Federal Regulations §§ 1500-1508), the Department of the Army Procedures for Implementing NEPA (32 Code of Federal Regulations § 651), and Chief of Naval Operations Instruction M-5090.1.

DESCRIPTION OF THE PROPOSED ACTION: The U.S. Navy SSP and U.S. Army RCCTO are considering up to three launch locations at PMRF and PSCA, and payload impact areas in the Pacific BOA for the JFC Flight Tests Supplemental EA/OEA Proposed Action.

PMRF: Flight test activities may include launch from the THAAD launch site and impact of the payload in the Pacific BOA. PMRF's THAAD launch site was selected as an alternative test range for the JFC flight tests because of its launch pad infrastructure and suitability, data collection and storage capabilities, booster and explosive materials storage capabilities, available timeframe for test launches, range and explosive safety record, and ability to meet security requirements for conducting the Proposed Action.

PSCA: PSCA's Area 1 and Launch Pad-2 (LP-2) have been designated by PSCA to accommodate mobile systems with launchers because of their connections to range infrastructure (i.e., fiber, communications, etc.), lightning protection, and flat surface. Area 1 is a

gravel pad. LP-2 is a concrete pad. Area 1 was previously used by the THAAD launch system and Patriot weapon systems, and LP-2 has been used for Strategic Target System missions.

Pacific BOA: The Pacific BOA sites will be pre-selected as booster drop zones and payload impact zones and monitored to ensure that there will be no vessels or aircraft in the vicinity.

PURPOSE OF AND NEED FOR THE PROPOSED ACTION: The purpose of the Proposed Action is to perform the JFC land-based test launches at PMRF and PSCA, with payload impacts in the Pacific BOA, to collect data to verify Long-Range Hypersonic Weapon (LRHW) performance.

The Proposed Action is needed to prove that the Conventional Prompt Strike weapon system and Army LRHW system meet all key performance requirements within the capabilities of the All-Up-Round missile used by both systems. To meet the Conventional Prompt Strike and LRHW program objectives, test events must satisfy certain critical objectives. Critical objectives include demonstrating weapon system effectiveness, demonstrating applicable design features, and establishing effective operating procedures, which also ensure the safety of the warfighter and the public.

ALTERNATIVES CONSIDERED: A list of the full screening criteria/evaluation factors is in the 2022 JFC EA/OEA. To meet the JFC program objectives additional screening factors were identified for the JFC Flight Tests Supplemental EA/OEA. The screening factors are as follows:

1. The launch and impact location must be available for and capable of conducting JFC flight tests within the required timeframes.
2. The launch pad is capable of supporting the Transporter Erector Launcher launch configuration.
3. The launch pad is capable of supporting the weight of the Transporter Erector Launcher and supporting equipment.
4. The equipment and personnel required to support the test will be available when required.
5. Capable of incorporating the additional locations for flight tests beginning in the first quarter of Fiscal Year 2025.
6. Launch and impact locations must meet security requirements.

No Action Alternative: The No Action Alternative would not meet the purpose and need for the Proposed Action. Under the No Action Alternative, the Action Proponents could not test the All-Up-Round missile at the analyzed locations, which would adversely impact national security and the United States' strategic deterrence mission. The Proposed Action would not occur, and the Action Proponents would not pursue the JFC flight tests at PMRF's THAAD launch site or PSCA's Area 1 or LP-2. Under the No Action Alternative, JFC flight tests would not impact the Pacific BOAs not analyzed in the 2022 JFC EA/OEA. The actions analyzed in the JFC EA/OEA would still occur under the No Action Alternative, including JFC launches from Sandia National Laboratories/Kaua'i Test Facility Launch Pad 42 with impact in the Pacific BOA.

SUMMARY OF ENVIRONMENTAL RESOURCES EVALUATED IN THE SUPPLEMENTAL EA/OEA: Council on Environmental Quality regulations, NEPA, and Navy and Army instructions for implementing NEPA specify that an EA/OEA should address those resource areas potentially subject to impacts. In addition, the level of analysis should be commensurate with the anticipated level of environmental impact.

Table 1 summarizes the resources that were evaluated in detail in the Supplemental EA/OEA. The resources that were not further evaluated had potential impacts that were determined to be negligible or nonexistent.

Table 1. Summary of the Anticipated Impacts to the Environmental Resources in the Region of Influence

Proposed Action			
Resource	PMRF	PSCA	Pacific Ocean BOA
Air Quality and Climate Change		E	
Airspace Management			
Water Resources	E	E	E
Geology and Soils			
Cultural Resources	E		
Biological Resources	E	E	E
Land Use			
Noise and Vibration			
Infrastructure and Utilities			
Transportation/Traffic			
Public Health and Safety	E	E	
Hazardous Materials and Wastes	E	E	E
Socioeconomics, Environmental Justice		E	
Aesthetics and Visual Resources			

Note: Shaded boxes marked **E** indicate areas that were evaluated in detail.

SUMMARY OF POTENTIAL ENVIRONMENTAL CONSEQUENCES OF THE PROPOSED ACTION AND MAJOR MITIGATING ACTIONS

Proposed Action

Pacific Missile Range Facility: **Table 2** summarizes the potential impacts associated with the implementation of the Proposed Action at PMRF. **Table 5** lists mitigating actions for PMRF.

Table 2. Summary of Potential Impacts Associated with the Implementation of the Proposed Action – PMRF

Resource	Summary of Potential Impacts
Water	The JFC flight tests potential releases, current regulations, and infrastructure specific to PMRF lead to the conclusion that any impacts to water resources from the JFC flight tests will not have adverse impacts on hydrologic function or quality at PMRF. Because the existing drainage ditches are designed to move water away from the agricultural fields during irrigation and rainfall, no residual effects of past launches are expected. Turbidity may temporarily increase due to grounding rods temporarily being installed up to 1.8 meters (6 feet) below ground surface, although suspended matter will settle out and return to base levels post-test removal. No permanent impacts to water resources will be expected as a result of the Proposed Action.
Cultural Resources	The Proposed Action will not require construction at the THAAD launch site. There are no properties eligible for listing on the National Register of Historic Places at the launch site. No impacts on cultural resources will be expected as a result of this Proposed Action. Therefore, no Section 106 consultation with the Hawai'i State Historic Preservation Division is required for the Proposed Action.
Biological Resources	<p>The Proposed Action has the potential to impact biological resources in the PMRF region of influence through exposure to elevated sound pressure levels, wildfire risk from launch, launch emissions, artificial lighting, and increased human activity and equipment operation.</p> <p><u>Terrestrial Vegetation:</u> JFC activities will have no long-term adverse impact on vegetation at PMRF.</p> <p><u>Terrestrial Wildlife:</u> The primary stressor of concern to most wildlife species at PMRF is launch noise. Based on the expected distribution of Endangered Species Act (ESA)-listed species and the expected maximum sound pressures from launch, the impact of launch noise on ESA-listed species will be negligible to minor and short-term. Overall, terrestrial wildlife will not be significantly impacted by these JFC Supplemental launch and launch support activities at PMRF.</p> <p><u>Marine Wildlife:</u> Marine wildlife will not be impacted by JFC activities in the PMRF region of influence. Vehicle launch and overflight will result in elevated noise levels in air but based on expected sound pressure levels in marine habitats, there will be no effects to marine wildlife.</p> <p><u>Environmentally Sensitive Habitats:</u> No impacts to Essential Fish Habitat nor to designated critical habitat for lau'ehu are expected due to launch activities at PMRF.</p> <p><u>ESA Protected Resources:</u> Because the Proposed Action may affect some terrestrial ESA-listed species, the Action Proponents consulted with the U.S. Fish and Wildlife Service under Section 7 of the ESA. A Biological Evaluation was prepared to fully evaluate the potential effects of the Action on ESA-listed species and designated critical habitats. Based on the analyses in the Biological Evaluation, JFC Supplemental activities may affect but are not likely to adversely affect four Hawaiian waterbird species, nēnē, Hawaiian hoary bats, hauled out green sea turtles, or designated critical habitat for lau'ehu. The U.S. Army and Navy have consulted with the U.S. Fish and Wildlife Service under Section 7 of the ESA for JFC Supplemental launch activities at the THAAD launch site.</p>
Public Health and Safety	JFC mission personnel will follow the same health and safety procedures developed under existing plans at PMRF. Federal, state, and local regulations as well as PMRF standard operating procedures will be followed for launch site preparation, booster handling, and all hazardous operations. PMRF Missile Flight Analysis, Ground Safety, Range Safety, Ocean Clearance, Transportation Safety, and Fire and Crash Safety procedures will be followed to ensure the safety of workers and members of the public. PMRF will issue Notices to Air Missions and Notices to Mariners ahead of any JFC flight test, in accordance with range safety and Federal Aviation Administration requirements. In accordance with Executive Order 13045, Protection of Children from Environmental Health and Safety Risks, the proponents have determined that since the JFC flight tests will be conducted on Department of Defense property and out in the open ocean, the JFC flight test has no environmental health and safety risks that may disproportionately affect children. The Proposed Action will not impact public health and safety at PMRF.

Resource	Summary of Potential Impacts
Hazardous Materials and Wastes	Any hazardous materials and waste generated in support of the Proposed Action will not be expected to exceed PMRF's capacity to manage, store, or dispose of them in accordance with federal, state, or local laws; nor will the Proposed Action be expected to increase the risk of, or create new, human and environmental health risks.

Pacific Spaceport Complex Alaska: Table 3 summarizes the potential impacts associated with the implementation of the Proposed Action at PSCA. **Table 5** lists Mitigating Actions for PSCA.

Table 3. Summary of Potential Impacts Associated with the Implementation of the Proposed Action – PSCA

Resource	Summary of Potential Impacts
Air Quality and Climate Change	<p><u>Air Quality</u>: there could be up to 6 flight tests per year for a total of 60 flight tests over a 10-year period. The estimated annual emissions for all flight tests do not exceed the Prevention of Significant Deterioration significant indicator levels for pollutants of concern. Therefore, no significant impacts to air quality are anticipated from flight tests at PSCA.</p> <p><u>Climate Change</u>: Although there is a potential for the release of greenhouse gas emissions, the estimated tons per year are unknown or unqualifiable because the LRHW All-Up-Round missile is still in development and there are no estimated emissions for greenhouse gases (carbon dioxide equivalent). Additionally, due to the small amount of carbon monoxide produced in the LRHW All-Up-Round surrogate, the increase in emissions is anticipated to be under the comparable U.S. Environmental Protection Agency presumptive effects threshold of 75,000 tons per year. Therefore, the Proposed Action would not be expected to result in a significant contribution to global climate change.</p>
Water Resources	Short-term, minor impacts on water resources will occur as a result of LRHW All-Up-Round missile launches. Effects from launch operations will occur only during launches as a result of rocket exhaust product deposition. Any waste materials generated will be disposed of according to applicable regulations and range procedures and policy by PSCA, and will not impact groundwater, surface waters, or wetlands.
Biological Resources	<p>The Proposed Action has the potential to impact biological resources in the PSCA region of influence through exposure to elevated sound pressure levels, heat, and wildfire risk from launch, launch emissions, and increased human activity and equipment operation.</p> <p><u>Terrestrial Vegetation</u>: Plants near the launch pads may be temporarily affected by heat and emissions from vehicle launch. However, based on studies of vegetation conducted after launches from PSCA, no long-term effects on vegetation will be expected. Vegetation will be expected to return to normal within a year of the launch and there will be no adverse impacts to special-status, rare, or otherwise important vegetation.</p> <p><u>Terrestrial Wildlife</u>: The potential exists for launch noise to cause behavioral disturbance of pinnipeds hauled out in terrestrial habitats; however, based on expected noise levels and previous monitoring during launches, impacts will be minor. In addition, the National Marine Fisheries Service has determined that PSCA launch activities will not reach the level of take for any cetaceans (whales and dolphins) and that any noise that could reach these species will be discountable. Overall impacts on terrestrial wildlife will be negligible to minor and short-term.</p> <p><u>Marine Resources</u>: Sonic booms and other flight test noises are unlikely to affect marine wildlife and noise impacts from sonic booms will be nonexistent or negligible for marine biological resources including ESA-listed species.</p> <p><u>Environmentally Sensitive Habitats</u>: No impacts to Essential Fish Habitat or other environmentally sensitive habitats are expected due to launch activities at PSCA.</p> <p><u>ESA Protected Resources</u>: Proposed launch activities will either have no effect on or will not adversely affect ESA-listed species at PSCA and impacts will be nonexistent to negligible. The U.S.</p>

Resource	Summary of Potential Impacts
	Army and Navy have consulted with the U.S. Fish and Wildlife Service under Section 7 of the ESA for potential effects on species in nearshore waters.
Public Health and Safety	JFC mission personnel will follow the same health and safety procedures developed under existing plans at PMRF. Federal, state, and local regulations as well as PMRF standard operating procedures will be followed for launch site preparation, booster handling, and all hazardous operations. PMRF Missile Flight Analysis, Ground Safety, Range Safety, Ocean Clearance, Transportation Safety, and Fire and Crash Safety procedures will be followed to ensure the safety of workers and members of the public. PMRF will issue Notices to Air Missions and Notices to Mariners ahead of any JFC flight test, in accordance with range safety and Federal Aviation Administration requirements. In accordance with Executive Order 13045, Protection of Children from Environmental Health and Safety Risks, the proponents have determined that since the JFC flight tests will be conducted on Department of Defense property and out in the open ocean, the JFC flight test has no environmental health and safety risks that may disproportionately affect children. The Proposed Action will not impact public health and safety at PMRF.
Hazardous Materials and Waste	Any hazardous materials and waste generated in support of the Proposed Action will not be expected to exceed PMRF's capacity to manage, store, or dispose of them in accordance with federal, state, or local laws; nor will the Proposed Action be expected to increase the risk of, or create new, human and environmental health risks.
Socioeconomics/ Environmental Justice	<p>The Proposed Action will restrict subsistence fishing, commercial and tourist activities to the offshore waters near PSCA (lasting approximately 8 hours for each flight test event), which could reduce commercial fishing and tourism related opportunities (fishing, sightseeing, aircraft trips, hunting). Additionally, some of the project related personnel are expected to use local hotels, thus reducing the number of rooms available for tourists. Although fishing (i.e., subsistence resources) is allowed year-round, the Navy is aware of the major fishing season for Old Harbor and to mitigate impact to the fishing community associated with Old Harbor, to the extent possible the Navy will avoid testing during the fishing season.</p> <p>As closure during flight tests will be infrequent and temporary (lasting approximately 8 hours for each flight test event) impacts to daily fishing limits (commercial and subsistence) will be negligible. PSCA will continue to hire local fishing vessels to serve as boundary boats during the safety closure periods. A Notice to Air Missions will be issued concurrently with the Notice to Mariners, imposing flight restrictions in the overhead safety and hazard zones for approximately 8 hours.</p>

Pacific Ocean: Table 4 summarizes the potential impacts associated with the implementation of the Proposed Action in the Pacific Ocean. Mitigating Actions for the Pacific Ocean are listed in Table 5.

Table 4. Summary of Potential Impacts Associated with the Implementation of the Proposed Action-Pacific Ocean

Resource	Summary of Potential Impacts
Water Resources	There will be no disturbance to ocean waters beyond the settling of the individual booster stages hundreds of kilometers (miles) apart as they come to rest on the sea floor after splashing down into the ocean along the flight path and slowly sinking thousands of meters (feet). Turbidity may be temporarily increased. It is anticipated that the release of hazardous materials from missiles into seawater will not be significant. Therefore, adverse water quality effects from the payload are expected to be minimal to insignificant.
Biological Resources	<p>The Proposed Action has the potential to impact biological resources in the Pacific Ocean region of influence through exposure to elevated sound levels, direct contact from launch vehicle components, exposure to hazardous materials, and increased vessel activity.</p> <p>Marine Wildlife: Overall, marine mammals, sea turtles, seabirds, and fish are not expected to be significantly impacted by any JFC activities in the BOA. Any effects, if realized, will likely be limited</p>

Resource	Summary of Potential Impacts
	<p>to short-term startle reactions, and marine wildlife will be expected to return to normal behaviors within minutes. The Proponents have concluded that the Proposed Action will not result in incidental take of any marine mammal species protected under the Marine Mammal Protection Act or of birds protected under the Migratory Bird Treaty Act in the BOA.</p> <p><u>Environmentally Sensitive Habitats:</u> Essential Fish Habitat (EFH) and designated critical habitat for ESA listed species occurs within the deep waters of the stage 1 booster drop zones. Given the limited size and characteristics of components and the time between tests, direct contact and hazardous chemicals from the stage 1 boosters will have negligible and likely undetectable adverse effects on EFH. While the proposed activity will not adversely affect EFH to the extent that there will be a reduction in the quantity or quality of EFH, the Action Proponents consulted with the National Marine Fisheries Service for potential minimal adverse effects to EFH in the Hawaiian Exclusive Economic Zone. Proposed activities are also unlikely to affect any designated critical habitat. The flight path will cross over the Papahānaumokuākea Marine National Monument. However, the stage 1 booster drop zone does not occur in the monument and no part of the Proposed Action will impact the monument.</p> <p><u>ESA Protected Resources:</u> Proposed activities in the BOA may affect but are not likely to adversely affect marine ESA listed species and designated critical habitats. The Action Proponents prepared a biological evaluation to full evaluate the potential effects of proposed activities on ESA listed species and requested an amended consultation for JFC activities from the National Marine Fisheries Service to include JFC Supplemental activities. The National Marine Fisheries Service issued a letter of concurrence that proposed activities may affect but are not likely to adversely affect ESA-listed species.</p>
Hazardous Materials and Wastes	The propellant is expected to be completely expended prior to splashdown. All payload materials are expected to sink to the ocean floor. Visible debris on the surface of the ocean will be recovered and removed and will not pose a significant source of solid or hazardous waste. Therefore, overall impacts from hazardous materials and waste in the Pacific Ocean are anticipated to be negligible.

Mitigation Measures: Table 5 summarizes mitigation measures for the Proposed Action.

Table 5. Summary of Mitigation Measures for the Proposed Action

Resource	Mitigation Measure
Air Quality and Climate Change	<p>The following mitigation measures will be implemented as part of the Proposed Action at Pacific Spaceport Complex Alaska (PSCA) to minimize the potential effects of carbon monoxide from Proposed Action:</p> <ul style="list-style-type: none"> • Use hybrid gasoline–electric vehicles (alternate fuel source). • Use battery electric vehicles. • Follow vehicle maintenance practices for vehicle efficiency and use of fuel. • Increase the use of low-carbon fuels. • Reduce the number of vehicles used by workers. • Use public transit. • Develop and use transportation strategies to reduce carbon monoxide production (i.e., car/van pool).
Biological Resources	<p>PMRF Biological Conservation and Mitigation Measures</p> <p>The following avoidance, minimization, and conservation measures will be implemented as part of the Proposed Action at PMRF to minimize the potential effects of the Proposed Action on Endangered Species Act (ESA)-listed species:</p>

Resource	Mitigation Measure
	<ul style="list-style-type: none"> • Prior to conducting project activities, all personnel will receive on-site training in coordination with the PMRF Environmental Program to ensure personnel understand PMRF's natural resource policies and wildlife protection regulations and protocols. • Training will include established PMRF Environmental Management Policies and guidelines relevant to the season of proposed activities, including "Nēnē Guidelines for PMRF Operations", "Good Samaritan Hazing" training for nēnē, "PMRF Dark Skies Program Briefing & Natural Resources Training", and "Shearwater Fallout Instructions". • All project personnel will be trained on the presence of ESA-listed species on PMRF and the importance of adhering to posted speed limits to avoid collision with protected wildlife. • Project personnel will not approach, disturb, or feed any protected animal species or their nests. • Project personnel will avoid entering beaches. • Project-related vehicle and equipment operation will occur within paved or maintained areas. • Areas up to the THAAD launch site fence line will be maintained free of flammable vegetation to minimize fire potential. • Non-native areas surrounding the THAAD site will be regularly mowed. Bushes, trees, shrubs, and short statured grass will be regularly cleared to reduce wildfire risk and avoid creating nesting habitat for nēnē. • The areas adjacent to the launch pad will be pre-soaked with water prior to launch if deemed necessary due to extremely dry or windy conditions. Site conditions and the need for vegetation wetting will be evaluated and coordinated with PMRF Range and Environmental Offices prior to launch. • Fire and emergency service crews will be present at every launch. • If the flight test will occur during the Hawaiian seabird fledging season, the Action Proponents will comply with the requirements of the 2014 and 2018 biological opinions as implemented by the Navy at PMRF, as well as any relevant procedures resulting from potential future Navy PMRF consultations with the U.S. Fish and Wildlife Service (USFWS) regarding the effects of lighting on ESA-listed seabirds. • Whenever possible, night lighting will be avoided or minimized. Where security or safety concerns require night lighting, either full cut-off lighting fixtures will be used or, if full cut-off fixtures cannot be installed, motion sensors will be used or lights will be turned off when not necessary. Between September 15th and December 15th, all project activities will be Dark Skies compliant. • Standard PMRF patrols will be conducted to confirm any exposed lights during the night are required and meet shielding requirements. • Standard PMRF biweekly wildlife surveys and nest searches will be conducted. • Launch area inspections (sweeps) will be conducted during launch set-up and prior to every launch to check for wildlife that may have entered the launch area. • If nēnē are observed loafing or foraging within 61 meters (200 feet) of the launch pad within 24 hours preceding the launch, project or PMRF test personnel would coordinate a response with the PMRF Environmental Office. Response solutions might include hazing (compliant with the nēnē 4(d) rule) by trained and authorized personnel to encourage nēnē to leave the area, or a nēnē nest search (within 61 meters [200 feet] of the launch pad) if birds are unwilling to leave the area. If a nēnē nest were found within 53 meters (175 feet) of the launch pad, PMRF Environmental Office will be notified and the USFWS will be contacted (by PMRF Environmental Office personnel) for further coordination on a course of action before the launch proceeds.

Resource	Mitigation Measure
	<ul style="list-style-type: none"> • No trimming or removal of trees is expected for the Proposed Action. Any trimming or removal of trees over 4.6 meters (15 feet) tall would be conducted outside of the Hawaiian hoary bat pupping season (June 1 to September 15). • No additional fencing or barbed wire would be installed for the Proposed Action at PMRF. • Standard PMRF security procedures will be followed during JFC launch activities. No project-related vehicles, equipment, or personnel would enter beach habitats. <p>Pacific Ocean Biological Conservation and Mitigation Measures</p> <p>The following avoidance, minimization, and conservation measures will be implemented as part of the Proposed Action in the Pacific Broad Ocean Area to minimize the potential effects of the Proposed Action on ESA-listed and Marine Mammal Protection Act protected species:</p> <ul style="list-style-type: none"> • During travel to and from impact zones, and during raft deployment, ship personnel would monitor for marine mammals and sea turtles to avoid potential vessel strikes, consistent with Navy standard operating procedures for vessel operation. Vessel operators would adjust speed or raft deployment based on the presence of special-status animals and/or lighting and turbidity conditions. • Vessel operations would only occur when weather and sea conditions are acceptable for safe travel. Vessel operations would not involve any intentional ocean discharges of fuel, toxic wastes, or plastics and other solid wastes that could potentially harm marine life. • Any accidental spills from support equipment operations would be contained and cleaned up. Spill response kits would be available on all support equipment. • Proposed activities would not involve any vessel anchoring. • Measures would be implemented to ensure all vessel hulls do not pose a risk of introducing new invasive species and therefore would not increase abundance of invasive species present at project locations. • Payload impact sites would be inspected after each flight test and any visible flight test debris on the ocean surface would be recovered and removed to the extent practicable. • The Action Proponents will submit an annual report to the National Marine Fisheries Service as required and specified in their 2021 ESA Section 7 letters of concurrence. The annual report would include information regarding JFC program activities and observations of ESA-listed species, submitted within 30 days of the end of each program year.
Public Health and Safety	<p>PMRF Public Health and Safety Mitigation Measures</p> <ul style="list-style-type: none"> • PMRF publishes dedicated warning Notices to Air Missions and Notices to Mariners 1 week before flight tests. In addition, a 24-hour recorded message is updated on the hotline daily by Range Operations to inform the public when and where hazardous operations will take place. Pre-launch Notices to Air Missions and Notices to Mariners will be issued 24 hours before launch in the ocean and flight areas defined, and the areas will be actively monitored prior to launch. <p>PSCA Public Health and Safety Mitigation Measures</p> <ul style="list-style-type: none"> • Pasagshak Point Road is closed at the site boundary and monitored during launch day to ensure that no unauthorized personnel enter the Ground Hazard Area. • PSCA will publish Notices to Air Missions and Notices to Mariners, coordinate security closures of lands and waters around PSCA and with the U.S. Coast Guard, Federal Aviation Administration, and the Alaska Department of Transportation and Public Facilities. Imminent launches will be announced on the local radio as well as in the newspaper.

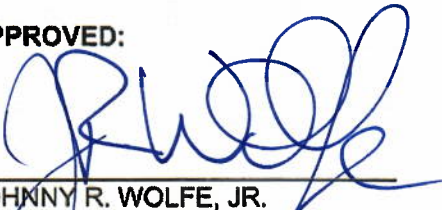
Resource	Mitigation Measure
<p>Hazardous Materials and Wastes</p>	<p>PMRF Hazardous Materials and Waste Mitigation Measures</p> <ul style="list-style-type: none"> • Hazardous materials usage and waste will continue to be managed by PMRF under existing applicable federal, state, local, and Department of Defense requirements. Authorized personnel will follow the existing range transportation safety plan and ordnance storage, handling, and safety plans. The Action Proponents must comply with range management plans for oil and hazardous materials outlined in the range Spill Prevention Control and Countermeasures Plan, the Installation Spill Contingency Plan, and existing standard operating procedures. • Only trained and authorized mission critical personnel will utilize support equipment and material hazards needed to perform the Proposed Action. • Ordnance management procedures found in Pacific Missile Range Facility Instruction (PMRFINST) 8020.5, Explosive Safety Criteria for Range Users Ordnance Operations, will be followed. • Any program using a new type of ordnance device for which proven safety procedures have not been established requires an Explosive Safety Approval before the ordnance is allowed on PMRF or used on a test range. This approval involves a detailed analysis of the explosives and of the proposed test activities, procedures, and facilities for surveillance and control, an adequacy analysis of movement and control procedures, and a design review of the facilities where the ordnance items will be handled. The JFC Supplemental EA/OEA Action Proponents will continue updating the existing JFC Explosive Safety Approval process with any new information as it becomes available. <p>PSCA Hazardous Materials and Waste Mitigation Measures</p> <ul style="list-style-type: none"> • Hazardous materials usage and waste will continue to be managed by PSCA under existing applicable federal, state, local, and Department of Defense requirements. Authorized personnel will follow the existing range transportation safety plan and ordnance storage, handling, and safety plans. The Action Proponents must comply with Launch Site management plans for oil and hazardous materials outlined in existing standard operating procedures. • Only trained and authorized mission critical personnel will utilize support equipment and material hazards needed to perform the Proposed Action. • Although unlikely, in the event of an accident at PSCA, the Action Proponents must remediate any hazardous materials and return the land to a natural or previous state, in accordance with a mitigation approach developed by the Action Proponents, which will be coordinated with and confirmed by the Alaska Department of Environmental Conservation. <p>Pacific Ocean Hazardous Material and Waste Mitigation Measures</p> <ul style="list-style-type: none"> • Although no residual debris is expected following impact, after each flight test a recovery team will be sent to inspect the impact location as soon as range safety clears the area. Visible debris on the surface of the ocean will be recovered and removed after each flight test (up to six joint test operations per year until 2032).
<p>Socioeconomics/ Environmental Justice</p>	<p>Socioeconomics/Environmental Justice Mitigation Measures PSCA Socioeconomics/Environmental Justice</p> <ul style="list-style-type: none"> • To the extent possible the Navy will avoid testing during the fishing season (the prime fishing time is from July-September).

PUBLIC INVOLVEMENT: The U.S. Army and Navy circulated the Draft Supplemental EA/OEA for public review for 30 days from December 1 to December 31, 2023. Two comments were received from members of the public and five comments were received from U.S. Agencies on the Draft Supplemental EA/OEA. Responses to those comments are included in Appendix B of the Final Supplemental EA/OEA.

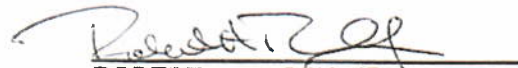
POINT OF CONTACT: The Supplemental EA/OEA addressing this action may be obtained from: U.S. Army Space and Missile Defense Command, P.O. Box 1500 Huntsville, AL 35807, Attn: David Fuller, or at the document website: <https://jfcceaoea.govsupport.us/>.

CONCLUSION: Based on the analysis presented in the Supplemental EA/OEA, the U.S. Army and Navy have concluded that the implementation of the Proposed Action will not significantly impact the quality of the human and natural environment and will not significantly harm the environment of the global commons (high seas). Accordingly, there is no requirement to prepare an Environmental Impact Statement or Overseas Environmental Impact Statement.

APPROVED:



JOHNNY R. WOLFE, JR.
Vice Admiral, U.S. Navy
Director, Strategic Systems Programs



ROBERT A. RASCH, JR.
Lieutenant General, U.S. Army
Director, Rapid Capabilities and
Critical Technologies Office