

GUAM FLIGHT TEST

ENVIRONMENTAL ASSESSMENT/OVERSEAS ENVIRONMENTAL ASSESSMENT

July 2024

www.mda.mil/system/guamft



An interceptor missile is launched from a U.S. vessel during an MDA and Navy test in the mid-Pacific.

The Missile Defense Agency (MDA), in cooperation with the United States (U.S.) Navy, U.S. Air Force, U.S. Army, and U.S. Coast Guard (Cooperating Agencies), has prepared an Environmental Assessment (EA)/Overseas Environmental Assessment (OEA) to evaluate the potential environmental impacts from proposed missile defense flight tests or target tracking exercises conducted from Andersen Air Force Base on Guam or at sea from a Navy ship in the western Pacific Ocean (Proposed Action). The Proposed Action includes conducting up to two flight tests or tracking exercises per year over a 10-year period.

PROPOSED ACTION AND ALTERNATIVES

The Proposed Action is to deploy, test, and conduct up to two flight tests or tracking exercises per year over a 10-year period. A flight test represents a target missile flight, an interceptor missile flight, an intercept of a target missile, or a test of sensors independent of missile flight. A tracking exercise involves using sensors to scan and track a target with no interceptor. Tracking exercises could include both land- and/or sea-based sensors. MDA would use existing facilities and place range safety and test assets on previously disturbed areas at or adjacent to Northwest Field at Andersen Air Force Base.

The purpose of the Proposed Action is to validate the integration and interoperability (ability of components or systems to work with other components or systems) of multiple sensors and interceptor systems from the MDA, Army, Navy, and Air Force that could become part of a missile defense system developed to protect Guam. The proposed flight tests and tracking exercises would help to facilitate research and increase the U.S. Department of Defense's understanding of the ability of a missile defense system to counter the threat presented by short-, mid-, and long-range ballistic missiles, cruise missiles, and hypersonic missiles in a realistic environment.

MDA proposes to conduct missile defense flight tests or target tracking exercises from Andersen Air Force Base or at sea from a Navy ship in the western Pacific Ocean.

MDA analyzed two action alternatives and a no action alternative in the Proposed Final EA/OEA:

- **No Action Alternative:** No flight tests would occur from land- or sea-based launchers; no tracking exercises to test or calibrate the land-, airborne-, sea-, and space-based sensors would occur.
- **Alternative 1:** Flight tests or tracking exercises would occur using land-based launch systems for interceptor launch with land-, airborne-, sea-, and space-based sensor integration.
- **Alternative 2 (Preferred Alternative):** Flight tests or tracking exercises would occur using land- or sea-based launch systems for interceptor launch with land-, airborne-, sea-, and space-based sensor integration.

ABOUT MDA

MDA is a research, development, and acquisition agency within the Department of Defense. Its workforce includes government civilians, military service members from all services, and contractor personnel around the world.

MDA Mission

The mission of MDA is to develop and deploy a layered missile defense system to defend the United States, its deployed forces, and allies from missile attacks in all phases of flight.

MDA works closely with combatant commands who rely on the missile defense system to protect the United States, its forward deployed forces, and allies from missile attack. MDA works with commanders to ensure that the United States develops a robust missile defense system and development program to address the challenges of an evolving threat. MDA is also steadily increasing international cooperation by supporting mutual security interests in missile defense.

Cooperating Agencies

The Missile Defense Agency is the lead agency for preparing the EA/OEA. Due to jurisdiction or expertise, or for potentially affected operations and resources, the U.S. Navy, U.S. Air Force, U.S. Army, and U.S. Coast Guard are cooperating agencies in the preparation and review of the EA/OEA.



Mission of the Missile Defense Agency. MDA's mission is to develop and deploy a layered missile defense system to defend the United States, its deployed forces, and allies from missile attacks in all phases of flight.

GUAM FLIGHT TEST

MDA is considering Northwest Field at Andersen Air Force Base for land-based flight tests and tracking exercises. The Proposed Action would require the use of existing facilities and placement of range safety and test assets on previously disturbed areas at or adjacent to Northwest Field. The first flight test, Flight Experiment Mission-02 (FEM-02), may occur in the first quarter of Fiscal Year 2025. The following systems and equipment would be deployed to Northwest Field prior to FEM-02:

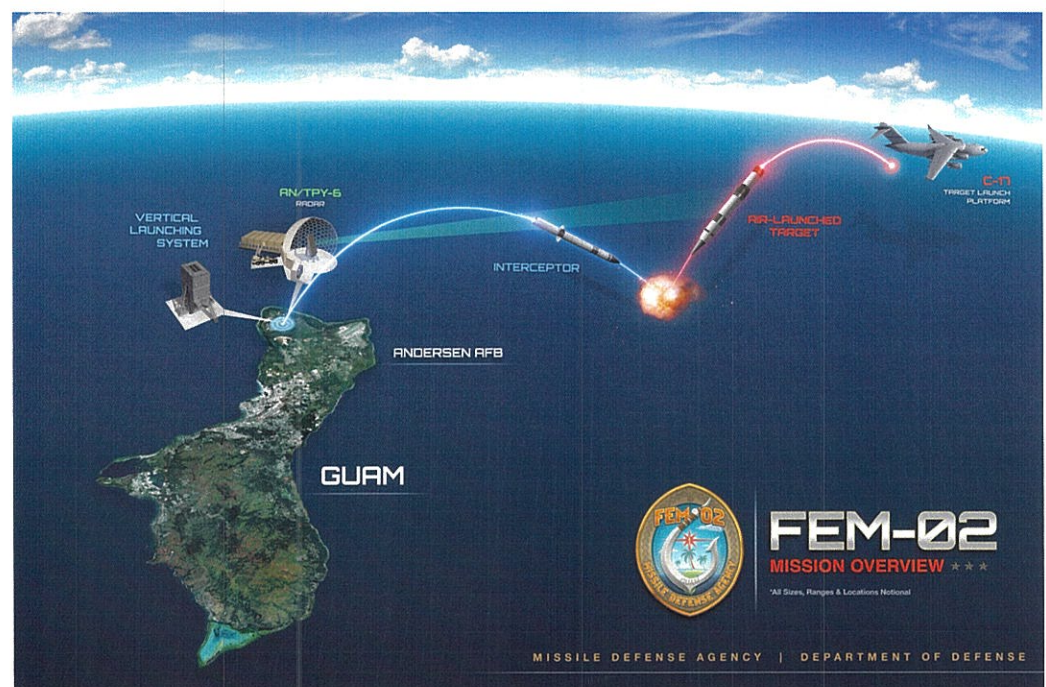
- Standard Missile-3 interceptor using a Vertical Launch System anchored to a temporary concrete pad.
- Range safety equipment including radars, telemetry collection devices, and flight termination systems to track the launch of the interceptor.
- Support trailers.

For FEM-02, a medium-range ballistic missile target would be air-launched from an Air Force C-17 or similar aircraft over the Pacific Ocean more than 800 nautical miles from Guam. The target would then travel on a set trajectory. An interceptor would launch vertically and rapidly accelerate out of eyesight and earshot as it travels to Earth's upper atmosphere, where it would begin its trajectory to intercept the target over the western Pacific Ocean. The interceptor missile would intercept and destroy the target by force of impact with debris falling to the ocean surface in a pre-determined region over a period of minutes to several hours.



Example of a land-based interceptor launch.

Proposed flight tests and tracking exercises would help to increase the ability of the U.S. Department of Defense to detect, intercept, and defeat missile threats.



Flight Experiment Mission (FEM-02). A target missile is air-launched from a cargo aircraft from predetermined locations over the western Pacific Ocean, and an interceptor missile is launched from land. The interception would occur in Earth's outermost atmosphere over the ocean greater than 200 nautical miles from Guam.

ENVIRONMENTAL RESOURCES ANALYZED IN THE ENVIRONMENTAL ASSESSMENT

MDA evaluated the potential impacts of the Proposed Action on the following resource areas:

- Airspace management
- Air quality
- Climate change and greenhouse gases
- Biological resources (terrestrial and marine)
- Cultural resources
- Environmental justice and children's environmental health and safety risk
- Public health and safety
- Noise

Cumulative impacts, which are the impacts on the environment resulting from the incremental impact of the Proposed Action when added to other past, present, and reasonably foreseeable future actions, were also analyzed.

Due to public interest, potential impacts on public health and safety, terrestrial and marine biological resources, and cultural resources are presented here. For more detailed information about potential impacts of the Proposed Action on all the above-listed environmental resources, please refer to the Proposed Final EA/OEA, available at www.mda.mil/system/guamft.

Public Health and Safety

The environmental analysis indicates that there would be a less-than-significant impact on public health and safety from the Proposed Action. The Department of Defense has established advisory standards and protocols to eliminate or acceptably minimize potential health and safety risks or hazards to the public. MDA would:

- Conduct a comprehensive safety analysis to determine launch and flight hazards for each flight test; identify risks to off-installation areas and nonparticipating aircraft, sea vessels, and personnel.
- Implement procedures for ground safety, flight safety, range clearance and surveillance, sea-surface area clearance and surveillance, and control of commercial air traffic.
- Follow applicable safety regulations to transport and handle hazardous materials.
- Establish an explosive safety zone around facilities where missiles or other ordnance are stored or handled.
- Coordinate issuance of notices to air missions and notices to mariners with the Federal Aviation Administration and U.S. Coast Guard.
- Establish temporary roadblocks and restrict access to public and private lands in the vicinity of the launch area outside Andersen Air Force Base.

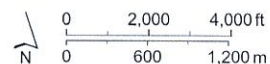
Proposed flight tests and tracking exercises are not expected to result in significant impacts on any of the resource areas analyzed in the Proposed Final EA/OEA.

The safety of the public and workers during flight tests and tracking exercises is paramount.



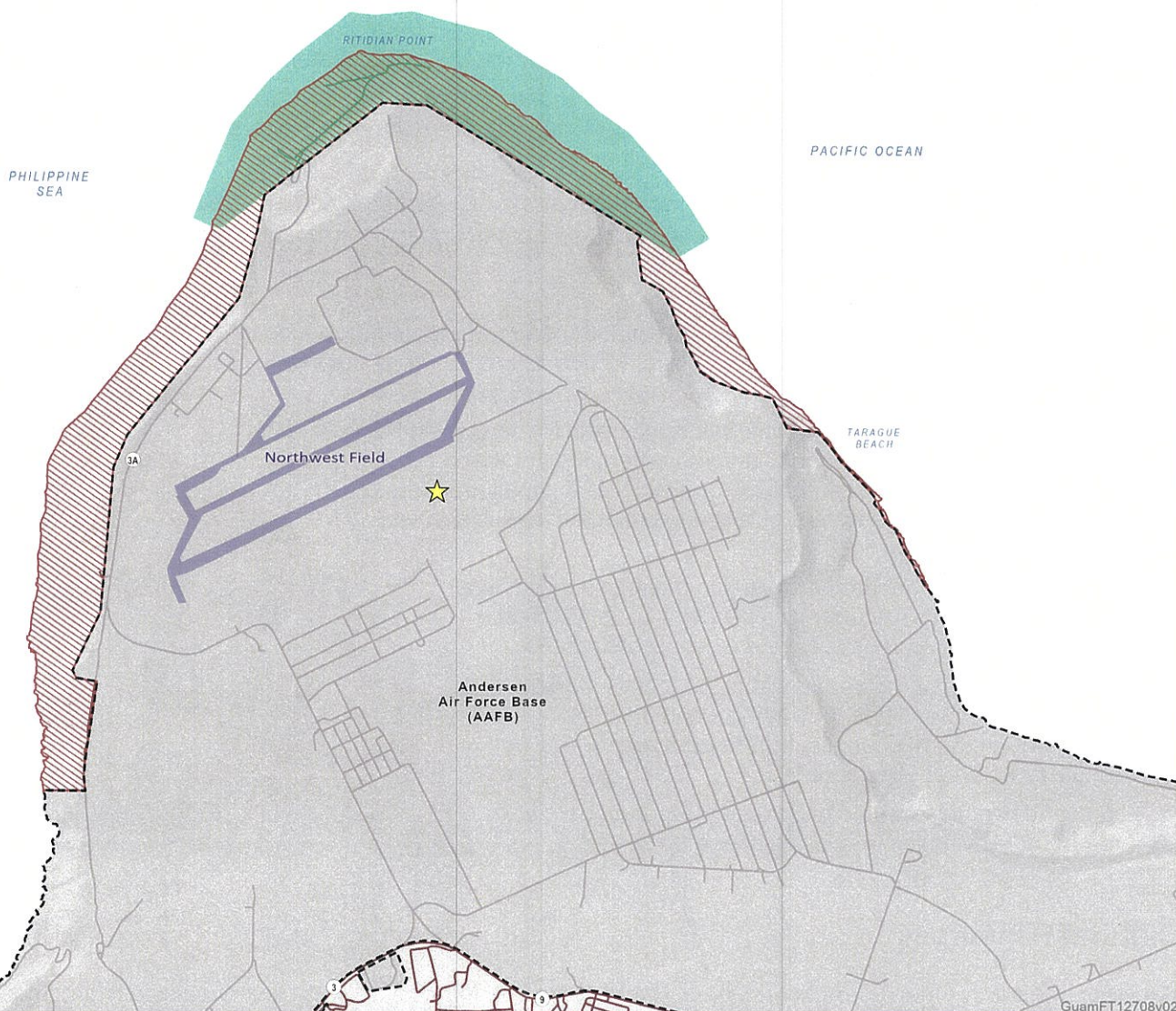
Legend

- ★ Launcher Area
- Road
- Department of Defense Property
- Guam National Wildlife Refuge
- Potentially Restricted Area

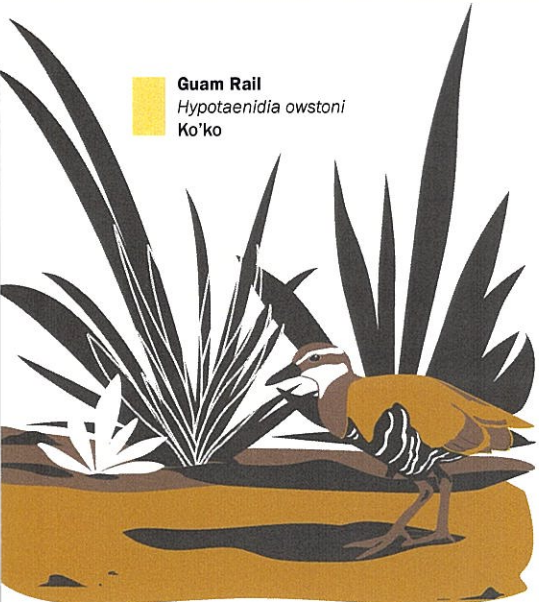


1:30,000

Coordinate System: UTM Zone 55 WGS 1984



Out of an abundance of caution, there may be access restrictions to private properties that border Andersen Air Force Base to ensure public safety. The U.S. Department of Defense would notify and coordinate with landowners regarding temporarily restricted access during some flight tests.



Guam Rail
Hypotaenidia owstoni
Ko'ko

Terrestrial and Marine Biological Resources

The environmental analysis indicates that there would be a less-than-significant impact on terrestrial and marine biological resources from the Proposed Action based on the following findings.

Terrestrial Biological Resources:

- Wildlife may be exposed to increased noise levels; however, impacts would be short-term, minor disturbances.
- The FEM-02 first booster is expected to land on Andersen Air Force Base near the launch site; it is not expected to strike wildlife but may strike Endangered Species Act (ESA)-listed plants, given the expected booster drop location, the size of the booster, and the infrequency of flight tests.
- Noise from construction and the flight test launch could result in a startle response from wildlife near the launch site, but impacts would be short-term and minor.

- Electromagnetic energy from the radar would not affect biological resources based on how radars operate, the behavior and ecology of wildlife (including birds and bats), and lack of habitat within the radar safety area.

Marine Biological Resources:

- Interception debris, parachutes, and expected boosters would be introduced into the marine environment in deep ocean waters. All debris would sink to the sea floor and would not be recovered.
- The potential for marine mammals, sea turtles, and ESA-protected fish species to be affected by falling debris, become entangled in parachutes, or ingest debris is very low and highly unlikely due to small amounts of debris, extremely low densities of federally protected marine species, and low frequency of flight tests.
- Increased noise from debris landing in the ocean could occur from the splashdown of expended boosters, but any increase in noise is expected to be a short-term, minor disturbance.
- If expended boosters landed within 10 feet of marine mammal species, splashdown noise could cause temporary hearing changes, but no permanent impacts would be expected.
- Splashdown noise would not cause temporary or permanent changes to hearing of sea turtles or federally protected fishes.



Cultural Resources

Based on the environmental impact analysis, the Proposed Action would have a less-than-significant impact on cultural resources because:

- There are no direct or indirect impacts on known cultural resources or historic properties on Andersen Air Force Base.
- The likelihood of impacting unknown cultural resources or historic properties on Andersen Air Force Base is very low.
- Debris falling to the seafloor is not likely to impact known or unknown cultural resources.
- Sea-based flight tests or tracking exercises would occur far from land.

NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA) is a U.S. law that requires federal agencies to identify and analyze the potential environmental impacts of a proposed action before deciding whether to proceed with that action. The law encourages and facilitates public involvement to inform decision makers on actions that may affect the community or the environment.

NATIONAL ENVIRONMENTAL POLICY ACT PROCESS

**Preparation of Proposed Final EA/OEA and Proposed
Finding of No Significant Impact (FONSI)**

(Completed Spring 2024)

**Public Review and Comment on Proposed Final EA/OEA and
Proposed FONSI**

(June 3, 2024 – Aug. 2, 2024)

(Current Phase)

Preparation of Proposed Final EA/OEA

(Summer/Autumn 2024)

FONSI

**Notice of
Availability of
Final EA/OEA
and FONSI**

**Notice of Intent to
Prepare an Environmental
Impact Statement**

(If EA/OEA finds Proposed Action
would have significant impacts)

► Indicates opportunity for public involvement

Substantive Comments

To be considered substantive, public comments should address:

- Any relevant and important issues or concerns that should be considered by the decision makers and are not already included in the Proposed Final EA/OEA and Proposed FONSI.
- Any errors in the evaluation of potential environmental impacts that could change the conclusions made in the Proposed Final EA/OEA and Proposed FONSI.
- Any additional facts or data MDA should consider while preparing the Final EA/OEA and Final FONSI.

NATIONAL HISTORIC PRESERVATION ACT

Public participation is an important part of the National Historic Preservation Act (NHPA) Section 106 process. Under Section 106, an “undertaking” is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency.

On behalf of MDA and Cooperating Agencies, the Navy is initiating Section 106 consultation under the NHPA for the Guam Flight Test proposal. The public is invited to identify and consider potential effects on historic properties from this undertaking, as defined in 36 Code of Federal Regulations section 800.16. Historic properties may include archaeological sites, sacred and religious sites, traditional cultural properties, or historic buildings, structures, or objects.

To provide input or learn how to become a consulting party, submit your request by email to info@gft-ea.com or U.S. postal mail to the address below.

GET INVOLVED

Public involvement is key in the Section 106 process. Please help identify historic properties in the project area by submitting a comment.

NHPA SECTION 106 PROCESS

Initiate the Process

- Identify the federal activity, or “undertaking”
- Coordinate with other reviews, such as the National Environmental Policy Act review
- Identify consulting parties, such as the Guam State Historic Preservation Office (SHPO)
- Plan to involve the public

Identify Historic Properties

- Determine the Area of Potential Effect
- Make a reasonable and good faith effort to identify historic properties in the area, e.g., research, survey
- Determine whether cultural resources are “historic properties”
- Seek input from SHPO and consulting parties
- Involve the public

Assess Adverse Effects

- Determine how the undertaking will affect historic properties
- Consider input from consulting parties
- Continue to involve the public

Resolve Adverse Effects

- Develop and consider alternatives or modifications to avoid, minimize, or mitigate adverse effects
- Notify the Advisory Council on Historic Preservation
- Continue consultation with SHPO and other parties
- Continue to involve the public

PROCEED

FOR MORE INFORMATION AND TO SUBMIT COMMENTS

MDA and Cooperating Agencies invite you to review the Proposed Final EA/OEA and Proposed FONSI. Public comments are welcome on the accuracy and adequacy of the environmental impact analysis and whether the project would affect historic properties pursuant to NHPA Section 106.

The public can submit comments at the open house public meeting, by email to info@gft-ea.com, or by U.S. postal mail to:

ManTech International Corporation
Attention: Guam Flight Test EA Project Support
PMB 403
1270 N. Marine Corps Dr., Suite 101
Tamuning, Guam 96913-4331

Comments on the Proposed Final EA/OEA, Proposed FONSI, and NHPA Section 106 consultation must be postmarked or received electronically by 11:59 p.m. ChST **Aug. 2, 2024**, for consideration in the Final EA/OEA and Final FONSI, if a FONSI is issued.

Providing private address information with your comment is voluntary, and such personal information will be kept confidential unless release is required by law.

Visit the project website at www.mda.mil/system/guamft to learn more. For media queries, please contact MDA Public Affairs at 256-450-4699 or email at mda.info@mda.mil.