

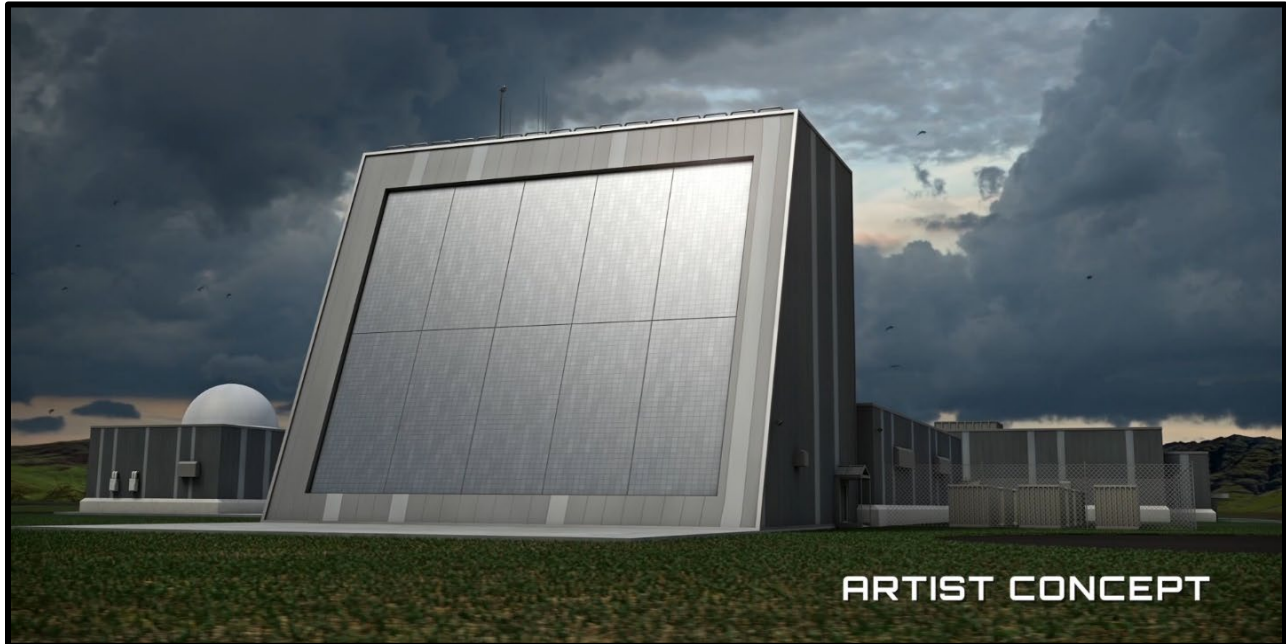
CUI



Department of Defense
Missile Defense Agency
5700 18th Street
Fort Belvoir, VA 22060-5573

MISSILE DEFENSE AGENCY

Homeland Defense Radar–Hawaii



Chapters 1.0 and 2.0

**Volume A – Draft
Environmental Impact Statement**

September 2022

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1.0 Purpose and Need for Proposed Action

1.1 Introduction

In compliance with the National Environmental Policy Act of 1969, as amended (NEPA), and the implementing regulations and policies listed below, the Missile Defense Agency (MDA) as lead agency prepared this Environmental Impact Statement (EIS) to evaluate the potential environmental impacts from the Proposed Action to construct, test, and operate a Homeland Defense Radar (HDR)–Hawaii (HDR-H); In-Flight Interceptor Communications System (IFICS) Data Terminal (IDT); Modernization of Enterprise Terminal (MET); and associated support facilities, utilities, and infrastructure. Implementing regulations and policies include:¹

- Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] Parts 1500–1508), issued in 1978²
- MDA’s NEPA Implementing Procedures (79 *Federal Register* [FR] 46410–46419)
- Department of the Air Force (DAF), Environmental Impact Analysis Process (32 CFR Part 989)
- Department of the Army, Environmental Analysis of Army Actions (32 CFR Part 651)
- Department of the Navy, Office of the Chief of Naval Operations Instruction (OPNAVINST) 5090.1E, Environmental Readiness Program
- U.S. Coast Guard (USCG) Commandant Instruction (COMDTINST) 5090.1, Environmental Planning Policy
- Federal Aviation Administration (FAA) NEPA implementing policies (FAA Order 1050.1F).

When deployed (i.e., constructed and readied for operation), the proposed HDR-H would provide enhanced capabilities for the United States (U.S.) Missile Defense System (MDS) to track and discriminate (i.e., identify threat objects among debris and decoys) more sophisticated long-range ballistic missile threats in the Pacific theater. As part of the protection of Hawai‘i, the HDR-H would optimize the defensive capability of the U.S. inventory of Ground-Based Midcourse Defense (GMD) interceptors to counter evolving missile threats.

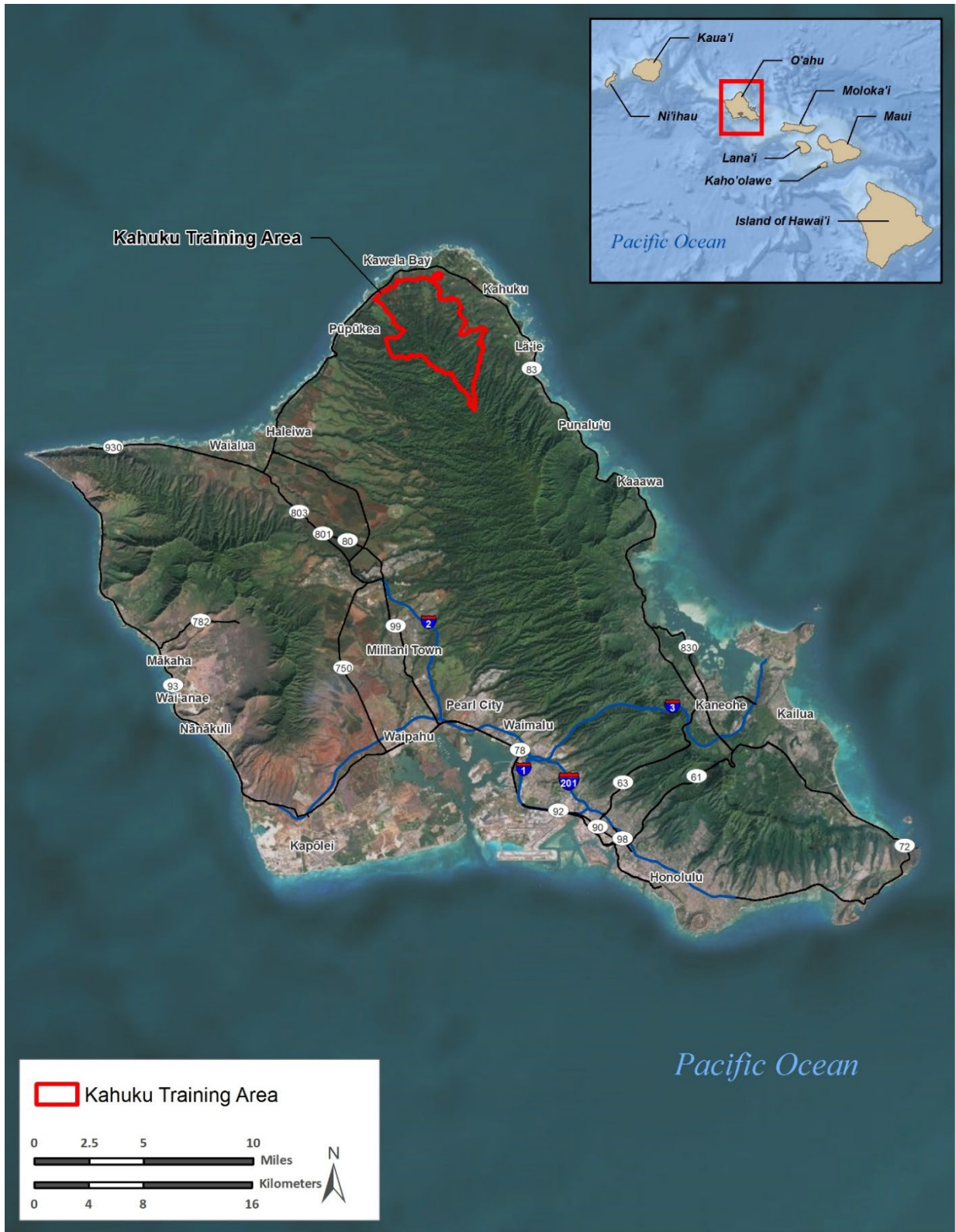
At the completion of a detailed screening and evaluation process conducted by MDA, two HDR-H alternative deployment locations in Hawai‘i were identified for evaluation in this EIS: U.S. Army Kahuku Training Area (KTA) on the island of O‘ahu and Pacific Missile Range Facility (PMRF) on the island of Kaua‘i. Their locations are shown on **Figure 1.1-1** and **Figure 1.1-2**,

¹ For a list of acronyms and abbreviations used throughout the EIS, see **Appendix A**.

² Because the EIS was initiated prior to CEQ updating their NEPA regulations in September 2020, the document was prepared under the 1978 CEQ NEPA regulations.

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Figure 1.1-1. Island of O’ahu -- Potential HDR-H Deployment at KTA

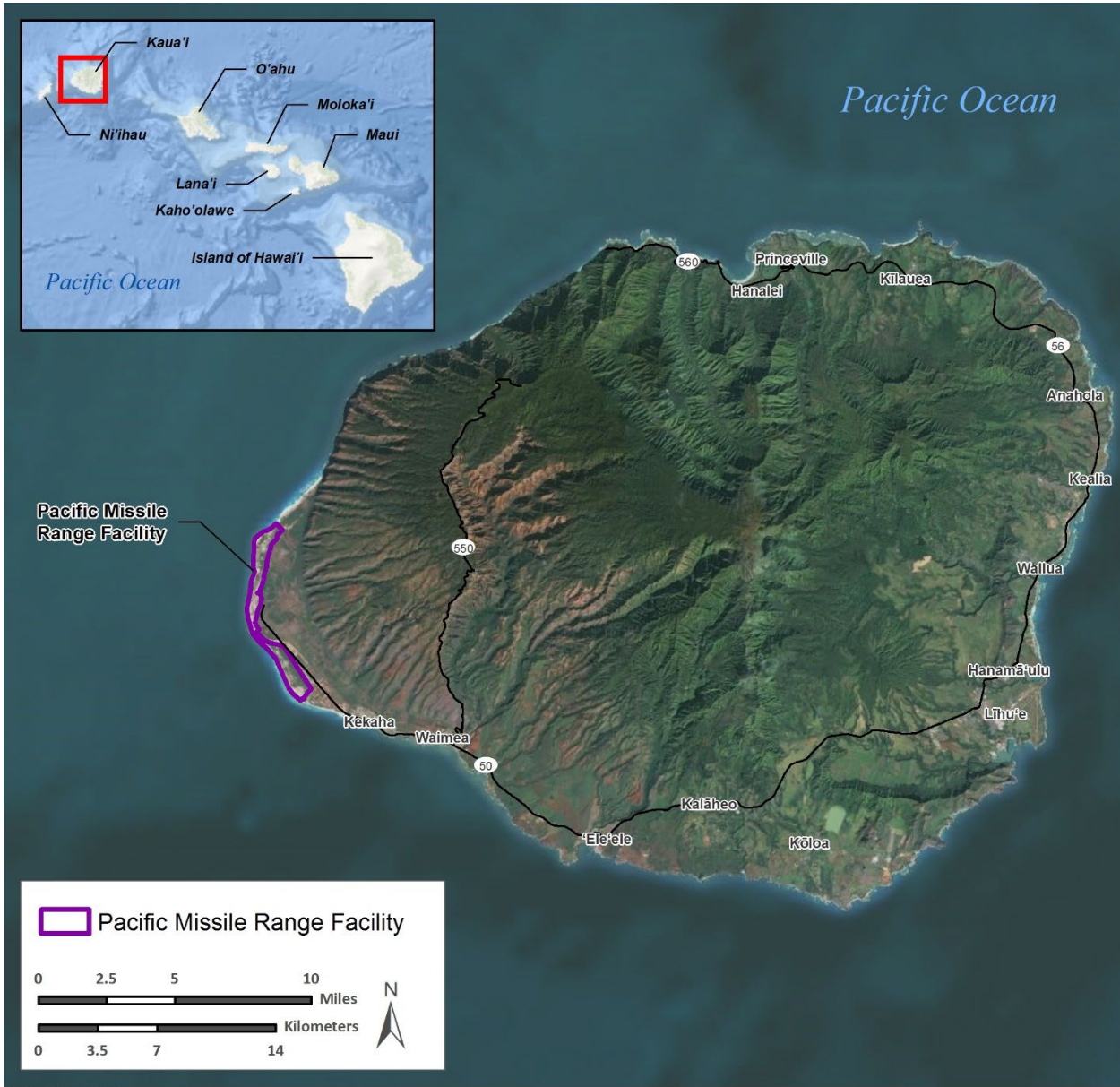


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Data Source: Bing Maps Aerial; World Ocean Base; ESRI Streetmap 2010

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Figure 1.1-2. Island of Kaua'i – Potential HDR-H Deployment at PMRF



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Data Source: Bing Maps Aerial; World Ocean Base; ESRI Streetmap 2010

1 respectively. The No Action Alternative is also analyzed. A detailed description of the Proposed
2 Action and alternatives is provided in **Chapter 2.0**.

3 If the decision is made to proceed with Proposed Action implementation, construction of the
4 HDR-H Preferred Alternative could begin as early as 2024. The Proposed Action comprises
5 many different components, and construction completion would vary for each component. The
6 radar facility would become operational following construction and functionality testing.

7 **1.2 Background**

8 Within the Department of Defense (DoD), MDA is responsible for developing, testing, and
9 fielding an integrated MDS to defend the United States, its deployed forces, allies, and friends
10 from missile attacks in all phases of flight. The MDS provides a layered defense, consisting of
11 various land-, sea-, and space-based weapon, sensor, and communications and control system
12 platforms that are used to defeat ballistic missile threats.

13 **Ballistic Missile Threats.** Countries invest in ballistic missiles because they project power in
14 regional and strategic contexts, and provide attack capability from a distance. According to
15 information received from the intelligence community, current trends indicate proliferation of
16 ballistic missile systems using advanced liquid- or solid-propellant propulsion technologies are
17 becoming more mobile, survivable, reliable, accurate, and capable of striking targets over longer
18 distances. These types of weapons have the capability to cause widespread destruction of both
19 civilian and military targets, and could be used to reduce military options for U.S. combatant
20 commanders.

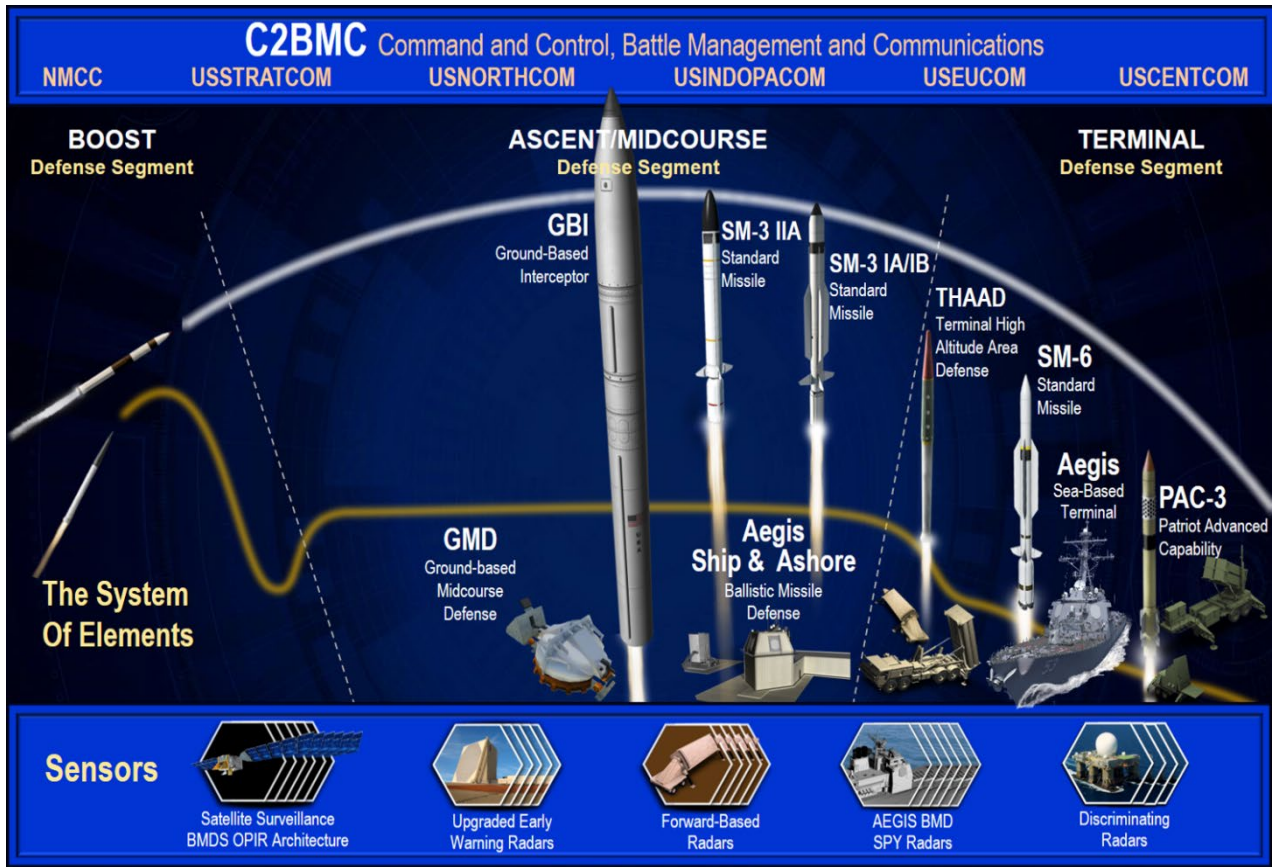
21 Missile defense technology being developed, tested, and deployed by the United States is
22 designed to counter ballistic missiles of all ranges (i.e., short, medium, intermediate, and long
23 range).

24 **Missile Defense System.** Because ballistic missiles have different ranges, speeds, sizes, and
25 performance characteristics, the MDS is an integrated, “layered” architecture as shown on
26 **Figure 1.2-1**. The system provides multiple opportunities to destroy missiles and their warheads
27 before they can reach their targets. Operated by U.S. military personnel from the U.S.
28 Combatant Commands, the MDS architecture includes the following features:

- 29 • Networked sensors (including space-based) and ground- and sea-based radars for
30 target detection and tracking
- 31 • Ground- and sea-based interceptor missiles for destroying a ballistic missile using either
32 the force of a direct collision, called “hit-to-kill” technology, or an explosive blast
33 fragmentation warhead that explodes near the ballistic missile threat while in flight; no
34 nuclear warheads are used in interceptors
- 35 • Command, Control, Battle Management, and Communications (C2BMC) network,
36 providing the operational commanders with the needed links between the sensors and
37 interceptor missiles

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Figure 1.2-1. The Missile Defense System



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Data Source: MDA

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Ballistic missile trajectories are commonly divided into three phases of flight:

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- **Boost Phase.** The boost phase defenses can defeat ballistic missiles of all ranges, including intercontinental ballistic missiles, but it is the most difficult phase in which to engage a missile. The intercept "window" is only from 1 to 5 minutes. Although the missile is easiest to detect and track in the boost phase because its exhaust is bright and hot, missile defense interceptors and sensors must be in proximity to the missile launch. Early detection in the boost phase allows for a rapid response and intercept early in its flight, possibly before any countermeasures can be deployed.

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- **Midcourse Phase.** The midcourse phase begins when the enemy missile's booster burns out and it begins coasting in space towards its target. This phase can last up to 20 minutes, allowing several opportunities to destroy the incoming ballistic missile outside Earth's atmosphere. Any debris remaining after the intercept will burn up as it enters the atmosphere. The GMD element is now deployed in Alaska and California to defend the U.S. homeland against a limited attack from rogue nations. This system can only defend against intermediate- and long-range ballistic missiles. The Aegis sea-based missile defense element utilizes existing Aegis cruisers and destroyers armed with interceptor missiles designed to defend against short- to medium-range ballistic missiles and has been successfully tested against an intermediate range missile. A network of

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1 advanced sensors, radars, and C2BMC components provide target detection, tracking,
 2 and discrimination of countermeasures to assist the interceptor missile in placing itself in
 3 the path of the hostile missile, destroying with hit-to-kill technology. These sensors and
 4 radars include transportable X-band radars, as well as advanced radars aboard Aegis
 5 cruisers and destroyers capable of operating in the world's oceans. MDA has also built
 6 the largest X-band radar in the world, the Sea-Based X-band (SBX), which is mounted
 7 on a floating platform, allowing it to traverse the world's oceans. This radar provides
 8 precise tracking of target missiles of all ranges and discriminates between actual
 9 missiles and countermeasures that could be deployed with a hostile missile.

- 10 • **Terminal Phase.** The terminal phase is very short and begins once the missile reenters
 11 the atmosphere. It is the last opportunity to make an intercept before the warhead
 12 reaches its target. Intercepting a warhead during this phase is difficult and the least
 13 desirable of the phases because there is little margin for error and the intercept will
 14 occur close to the intended target. Terminal phase interceptor elements include the
 15 Terminal High Altitude Area Defense (THAAD) being delivered to U.S. Army, the Aegis
 16 Ballistic Missile Defense near-term Sea-Based Terminal Defense capability using the
 17 Standard Missile-2 (SM-2) Block IV missile, and U.S. Army's PATRIOT Advanced
 18 Capability-3 (PAC-3) now deployed worldwide. These mobile systems defend against
 19 short- to medium-range missiles.

20 Each element of the MDS plays an important role in a robust system intended to defend against
 21 hostile missiles in any phase of flight. Deployment of the HDR-H would focus on improving
 22 discrimination of threats in the Pacific and communicating those threats to the MDS so that
 23 operating personnel can take appropriate action.

24 1.3 Purpose and Need

25 The purpose of the Proposed Action is to (1) support the MDS and enhance homeland defense
 26 capabilities for Hawai'i, and (2) make changes in airspace management to accommodate the
 27 operation of the HDR-H. The Fiscal Year (FY) 2017 National Defense Authorization Act requires
 28 MDA to develop a plan to construct and operate a "discrimination radar" or equivalent sensor
 29 for a location that will improve homeland missile defense of Hawai'i. A "discrimination radar"
 30 would improve the ability to discriminate lethal from nonlethal objects, which would expand the
 31 defensive capability of the U.S. inventory of GMD interceptors. The FY 2021 National Defense
 32 Authorization Act authorizes MDA to continue HDR-H radar development and siting efforts, and
 33 the FY 2021 Appropriation Bill provided funding to continue these efforts in FY 2021.

34 Deployment of a permanent radar system that provides a persistent midcourse MDS
 35 discrimination capability is needed in Hawai'i because of the existing and emerging missile
 36 threats in the region. The HDR-H is a critical capability required by the U.S. Indo-Pacific
 37 Command and Northern Command. When complete, the HDR-H and IDT would become part of
 38 the overall MDS and be functionally capable through the command and communications
 39 network. As for making changes to airspace management, such changes are needed to protect

1 aviation from the hazard posed by the high intensity radiated fields (HIRF) emitted from the
2 HDR-H.

3 The proposed HDR-H also would have Space Domain Awareness (SDA) capability for effective
4 identification, characterization, and tracking of active spacecraft and space debris.

5 Understanding and maintaining SDA is necessary for space operations to help ensure the
6 security, safety, economy, and environment of our nation.

7 **1.4 Decisions to Be Made**

8 This EIS will be used by MDA to support the decision on whether to deploy and operate the
9 HDR-H in Hawai'i or to select the No Action Alternative. Based on the direction contained in the
10 FY 2017 National Defense Authorization Act, the decisions to be made by MDA are how and
11 where to deploy the HDR-H in Hawai'i. This EIS considers and evaluates two alternative
12 deployment locations on the islands of Kaua'i and O'ahu. The deployment decisions will be
13 based on the analysis results of this EIS, along with analysis of the ballistic missile threat to the
14 United States, system performance and operational effectiveness, mission conflicts, location
15 constructability, and overall implementation costs.

16 For either of the HDR-H alternatives on Kaua'i and O'ahu, the decisions to be made by FAA are
17 whether to approve new or modified airspace restricted areas and their configurations so as to
18 protect aircraft operating within the National Airspace System from potentially hazardous HIRF
19 emitted from the proposed HDR-H, should MDA decide to test and operate the HDR-H. This
20 would include decisions to alter existing aircraft flight routes that would conflict with the new
21 restricted areas. These decisions would be made in accordance with the FAA rulemaking
22 process described in FAA Joint Order (JO) 7400.2N, *Procedures for Handling Airspace Matters*
23 (FAA 2022a).

24 As a connected action to both of the HDR-H alternatives, the relocation of existing facilities
25 would be required. For the PMRF alternative, U.S. Navy would need to decide where to relocate
26 several buildings, facilities, and antennas that are within the proposed HDR-H footprint, and
27 complete further planning considerations (i.e., fiscal and regulatory processes) to effectuate that
28 change. For the KTA alternative, DAF would need to decide where to relocate the Radio Solar
29 Telescope Network (RSTN) Observatory (Solar Observatory) from Ka'ena Point Space Force
30 Station (KPSFS) (previously Ka'ena Point Satellite Tracking Station [KPSTS]), which is located
31 on the western tip of O'ahu. This latter decision falls under the guidelines of the DAF Strategic
32 Basing Process (USAF 2017a).

33 No decisions on deployment of the HDR-H in Hawai'i nor any of the HDR-H related actions will
34 be made until after the NEPA process for this EIS is completed.

1.5 Scope of the Environmental Impact Statement

This EIS assesses the environmental impacts associated with the proposed construction, testing, and long-term operation of the HDR-H; IDT; MET; and associated support facilities, utilities, and infrastructure at each alternative. The EIS also assesses the environmental impacts associated with the demolition and relocation of existing facilities and operations. A detailed description of the Proposed Action is provided in **Section 2.1**. This EIS also evaluates the No Action Alternative, which is described in **Section 2.2**.

This EIS analyzes all reasonably foreseeable activities and operations that would occur during implementation of the Proposed Action. Environmental/resource categories within the affected environment that potentially could be impacted are analyzed in this EIS to provide decision makers with enough information to plan and make informed decisions. For this analysis, the following 15 broad environmental/resource categories were considered and are defined in **Chapter 3.0** of this EIS (Environmental Resources and Analysis Approach): airspace management, air quality, biological resources, cultural resources, environmental justice, geology and soils, hazardous materials and waste management, health and safety, infrastructure (utilities), land use, noise and vibration, socioeconomics, transportation, visual resources, and water resources. **Chapter 4.0** of this EIS (Affected Environment, Environmental Consequences, and Mitigation) describes the existing conditions and identifies the potential impacts in terms of these 15 environmental/resource categories.

1.6 Cooperating Agencies

In addition to MDA being the lead agency for this EIS, the following federal agencies—having either jurisdiction or special expertise for certain components of the Proposed Action or for potentially affected operations and resources—have accepted MDA’s invitation to participate as cooperating agencies (40 CFR § 1501.6) in the review and preparation of this EIS (refer to **Appendix B** for relevant correspondence):

- U.S. Department of the Air Force
- U.S. Department of the Army
- U.S. Department of the Navy
- U.S. Coast Guard
- Federal Aviation Administration

MDA consulted with DAF on the potential relocation of DAF assets from KPSFS to another military location in Hawai‘i, which is a connected action to deployment of the HDR-H at KTA on O‘ahu. If the KTA alternative was to be selected for HDR-H deployment, DAF would jointly sign the MDA Record of Decision (ROD) (or a separate DAF ROD) for this EIS in accordance with DAF regulations for NEPA implementation (32 CFR Part 989).

1 PMRF is both a Navy Pacific Fleet training range and a DoD military test and evaluation range.
2 U.S. Navy controls and oversees the activities and operations occurring at PMRF and within its
3 offshore range. Deployment of the HDR-H at PMRF may involve U.S. Navy hosting HDR-H as a
4 tenant at the installation. U.S. Navy also is involved as a cooperating agency because of the
5 proposed relocation of existing installation facilities under the PMRF alternative, and for the
6 potential relocation of DAF assets from KPSFS to PMRF in association with the HDR-H
7 deployment alternative at KTA on O'ahu. Additionally, U.S. Navy would have a lead role at Joint
8 Base Pearl Harbor-Hickam (JBPHH) in providing general operations support (e.g.,
9 medical/dental care) for any assigned HDR-H security forces on O'ahu. Thus, MDA consulted
10 with U.S. Navy to ensure effects on their ongoing missions and environmental compliance
11 requirements are properly addressed in this EIS.

12 Similarly, U.S. Army Garrison–Hawai'i (USAG-HI) controls and oversees the activities and
13 operations occurring on KTA. Deployment of the HDR-H at KTA may involve USAG-HI hosting
14 HDR-H as a tenant at the installation. As such, MDA consulted with USAG-HI to ensure effects
15 on their ongoing training operations and environmental compliance requirements are properly
16 addressed in this EIS.

17 USCG owns the Lighthouse Road parcel that abuts the PMRF South Gate and intersects with
18 Highway 50 (Kaunualii Highway). Deployment of the HDR-H at PMRF would require
19 improvements to Lighthouse Road in order to allow its use as a temporary HDR-H construction
20 entrance and for the permanent installation of underground communication lines. Thus, in
21 support of the PMRF alternative, MDA consulted with USCG on the proposed improvements to
22 and use of Lighthouse Road.

23 FAA is a cooperating agency because they are assigned responsibilities pursuant to 49 United
24 States Code (USC) § 40101 et seq. for civil aviation and regulation of air commerce in the
25 interests of aviation safety and efficiency. FAA's participation on this EIS is in accordance with
26 the Memorandum of Agreement (MOA) between DoD and FAA (2005). FAA has special
27 expertise and jurisdiction by law to approve possible airspace restrictions associated with the
28 Proposed Action. Because the Proposed Action is in Hawai'i, MDA is working with the FAA
29 Western Service Center, which has responsibility for the Pacific region. As noted in **Section 1.4**,
30 FAA will have decision authority concerning establishment of airspace restricted areas and their
31 configurations. If the Proposed Action to deploy HDR-H and establish new airspace restricted
32 areas is selected, FAA would publish a separate public notification as part of their rule making
33 process and issue a separate ROD to this EIS in accordance with FAA JO 7400.2N (FAA
34 2022a).

35 **1.7 Federal and State Environmental Analysis** 36 **Requirements**

37 The Proposed Action constitutes a federal action subject to the requirements of NEPA, as
38 amended. Accordingly, MDA has prepared this EIS through adherence with the NEPA

1 implementing regulations and procedures listed in **Section 1.1** so as to: (1) evaluate
 2 alternatives to the Proposed Action; (2) identify potential environmental impacts; (3) describe
 3 appropriate mitigation measures and other commitments; and (4) communicate the findings to
 4 agency decision makers, regulators, and the public.

5 As previously mentioned, the Proposed Action includes establishment of a new airspace
 6 restricted area within the radar viewing area, referred to as the field-of-regard (FOR). For the
 7 restricted area to be approved, a thorough environmental impact analysis of that action must be
 8 completed in accordance with FAA's NEPA implementing policies described in FAA Order
 9 1050.1F and FAA JO 7400.2N (FAA 2015, 2022a). Thus, this EIS is being prepared in
 10 accordance with these policies so that FAA can formally adopt and use the document in their
 11 decision-making process (see **Section 1.6**). Refer to **Chapter 3.0, Table 3.0-1**, for a cross
 12 reference of the environmental/resource categories analyzed in this EIS with the FAA impact
 13 categories listed in FAA Order 1050.1F.

14 During public scoping conducted in 2018, MDA also had planned for the HDR-H EIS to fully
 15 comply with the provisions of the Hawai'i Environmental Policy Act (HEPA) (Hawai'i Revised
 16 Statutes [HRS] Chapter 343 and Hawai'i Administrative Rule [HAR] Title 11 Chapter 200)
 17 because of a potential HDR-H alternative at Kuaokalā Ridge (KR) on O'ahu. The KR alternative
 18 was to be located mostly on state land adjacent to KPSFS. Long-term use of the state land and
 19 a new power generating facility on the state land would have triggered HEPA compliance
 20 requirements under HRS § 343-5(a). Because the KR alternative has since been dropped from
 21 further consideration for HDR-H deployment (see **Section 2.3.1**), and none of the other
 22 alternatives carried forward for analysis in the EIS trigger HEPA compliance, MDA has
 23 determined that HEPA no longer applies to the EIS analysis process. MDA, however, will
 24 continue preparing the EIS in accordance with NEPA and all other applicable federal, state, and
 25 local regulatory requirements.

26 **1.8 Related Environmental Documentation**

27 Following is a list of related environmental documents that describe and analyze earlier federal
 28 actions for implementing key components of the MDS. These documents provide background
 29 information and clarification on how the MDS was developed, how the components interface,
 30 and where other MDS components occur or operate:

- 31 • DoD, 2000. *National Missile Defense Deployment Final Environmental Impact*
 32 *Statement*, Department of Defense, Ballistic Missile Defense Organization, July 2000.
- 33 • MDA, 2003. *Ground-Based Midcourse Defense (GMD) Initial Defensive Operations*
 34 *Capability (IDOC) at Vandenberg AFB Environmental Assessment*, Missile Defense
 35 Agency (MDA), August 2003.
- 36 • MDA, 2005. *Ground-Based Midcourse Defense (GMD) Sea-Based X-Band (SBX) Radar*
 37 *Placement and Operation, Adak, Alaska*, Missile Defense Agency (MDA), October 2005.
- 38 • MDA, 2007. *Ballistic Missile Defense System (BMDS) Programmatic Environmental*
 39 *Impact Statement*, Missile Defense Agency (MDA), January 2007.

- 1 • MDA, 2016. *Long-Range Discrimination Radar, Clear Air Force Station, Alaska Environmental Assessment*, Missile Defense Agency (MDA), June 2016.
- 2
- 3 • MDA, 2017. *Continental United States (CONUS) Interceptor Site Final Environmental Impact Statement*, Missile Defense Agency (MDA), February 2017.
- 4
- 5 • MDA, 2021. *Long Range Discrimination Radar Operations, Clear Air Force Station, Alaska, Final Environmental Impact Statement*, May 2021.
- 6
- 7 • SMDC, 2002. *Ground-based Midcourse Defense (GMD) Validation of Operational Concept Supplemental Environmental Assessment*, U.S. Army Space and Missile Defense Command (SMDC), December 2002.
- 8
- 9
- 10 • SMDC, 2004. *Ground-based Midcourse Defense (GMD) Northeast Remote In-Flight Interceptor System Data Terminal (IDT) Environmental Assessment*, U.S. Army Space and Missile Defense Command (SMDC), May 2004.
- 11
- 12

13 The following environmental documents were also used during EIS development to provide
 14 understanding of similar actions, activities, or issues that might occur at the affected installations
 15 under the Proposed Action:

- 16 • Department of Energy (DOE), 2018. *Site Wide Environmental Assessment, Sandia National Laboratories Kaua'i Test Facility*, November 2018.
- 17
- 18 • PMRF, 2009. *Environmental Assessment for Advanced Radar Detection Laboratory (ARDEL), Pacific Missile Range Facility, Barking Sands, Kauai, Hawaii*, August 2009.
- 19
- 20 • U.S. Air Force (USAF), 2012. *Environmental Assessment Addressing the Demolition of Nine Buildings and Construction of a Civil Engineering Storage Building at Kaena Point Satellite Tracking Station, Oahu, Hawaii*, April 2012.
- 21
- 22
- 23 • USAG-HI, 2015. *Final Environmental Impact Statement for Schofield Generating Station Project*, U.S. Army Garrison–Hawai'i (USAG-HI), October 2015.
- 24
- 25 • U.S. Navy, 2008. *Hawaii Range Complex Final Environmental Impact Statement/ Overseas Environmental Impact Statement*, May 2008.
- 26
- 27 • U.S. Navy, 2017. *Final Environmental Assessment for Photovoltaic and Battery Energy Storage Systems at Pacific Missile Range Facility, Kauai, Hawaii*, May 2017.
- 28
- 29 • U.S. Navy, 2018. *Final Hawaii–Southern California Training and Testing Environmental Impact Statement/Overseas Environmental Impact Statement*, October 2018.
- 30

31 A complete list of reference documents used to prepare this EIS is provided in **Chapter 7.0**.

32 **1.9 Interagency and Intergovernmental** 33 **Coordination and Consultations**

34 Interagency and intergovernmental coordination is an integral part of EIS preparation. As part of
 35 early coordination and consultations, MDA notified and consulted with relevant federal and state
 36 agencies on the Proposed Action and alternatives to identify potential environmental issues and
 37 regulatory requirements associated with Proposed Action implementation. **Chapter 6.0** lists
 38 those agencies, organizations, and officials that were consulted. **Appendices B, C, and D**

1 contain copies of the relevant correspondence with agencies and organizations that was sent or
2 received to date by MDA.

3 **Consultations with U.S. Fish and Wildlife Service (USFWS)**

4 Early coordination and pre-consultation with USFWS in accordance with Section 7 of the
5 Endangered Species Act (ESA) was conducted during a series of meetings, telephone
6 conversations, and email communications. Beginning in February 2018, MDA and other DoD
7 agency personnel met with USFWS to provide their staff with general information about the
8 Proposed Action, discuss USFWS initial input on biological resources, and discuss the
9 consultation process. In a series of meetings and communications beginning in November 2018,
10 MDA and USFWS discussed biological resource surveys; potential effects of the Proposed
11 Action on ESA-listed species and their critical habitats; potential avoidance, minimization, and
12 mitigation measures; and the potential for formal consultation on the Proposed Action.

13 **Appendix C** contains copies of correspondence between MDA and USFWS. Further discussion
14 on Section 7 of the ESA is provided in **Section 5.1.3** of the EIS.

15 MDA plans to submit a Biological Assessment (BA) to USFWS that describes the effects of the
16 Preferred Alternative and related activities on ESA-listed species and their critical habitats, and
17 will request initiation of formal consultation under Section 7 of the ESA. At the conclusion of
18 consultation, USFWS will transmit their Biological Opinion (BO) to MDA, which will be included
19 in **Appendix C** of the Final EIS.

20 **Consultations with the National Marine Fisheries Service (NMFS)**

21 Because of HDR-H-related actions near shorelines and the potential for impacts from soil
22 erosion, early coordination with NMFS in accordance with both Section 7 of the ESA and the
23 Magnuson-Stevens Fishery Conservation and Management Act (MSA) for Essential Fish
24 Habitat (EFH) began in May 2019. MDA met with NMFS to provide information about the
25 Proposed Action and related activities; discuss the potential for effects on ESA-listed marine
26 species, their critical habitats, and EFH; discuss potential avoidance and minimization
27 measures; and discuss the consultation process. To assess the HDR-H Preferred Alternative,
28 MDA prepared a detailed Marine Resource Evaluation describing potential effects on ESA-listed
29 marine species, designated critical habitats, and EFH. Based on the evaluation, MDA concluded
30 that the Proposed Action is not likely to adversely affect ESA-listed marine species, their critical
31 habitats, marine mammals protected under the Marine Mammal Protection Act (MMPA), or
32 EFH. MDA plans to submit the completed evaluation to NMFS with a request for concurrence
33 with their determinations.

34 **Consultations with the Hawai'i State Historic Preservation Division (SHPD) and Native 35 Hawaiian Organizations (NHOs)**

36 During development of the EIS, MDA consulted with the Hawai'i SHPD, NHOs, the Office of
37 Hawaiian Affairs, and other interested parties to fulfill requirements under NEPA and
38 Section 106 of the National Historic Preservation Act (NHPA). NHPA Section 106 requires
39 federal agencies to take into account the effects of their undertakings on historic properties.
40 Federal agencies must consult with NHOs when an undertaking has potential to affect

1 properties of traditional religious or cultural significance. MDA has worked with the host
2 installations to identify individuals and families who have ancestral connections to areas
3 potentially affected by the Proposed Action. Further discussion on NHPA Section 106 is
4 provided in **Section 5.1.4** of the EIS.

5 Beginning in August 2021, all individuals and organizations identified as potential consulting
6 parties were contacted by letter or email and invited to participate in the NHPA Section 106
7 process. Follow-on consultation with interested parties included personal and small group
8 meetings, email correspondence, visits to alternative locations, and additional letters through
9 which MDA shared information about the Proposed Action and sought input regarding the
10 identification and evaluation of historic properties as well as the effects of the Proposed Action
11 on historic properties. This consultation is ongoing as MDA seeks to conclude the NHPA
12 Section 106 process. Further discussion of the NHPA Section 106 consultation as it relates to
13 each action analyzed in this EIS is provided in **Chapter 4.0**. All communications with NHOs are
14 being completed in accordance with DoD Instruction (DoDI) 4710.03 (*Consultation with Native
15 Hawaiian Organizations [NHOs]*) and 36 CFR Part 800. **Appendix D** contains a complete listing
16 of the consulting parties contacted, and the correspondence that MDA has sent and received to
17 date.

18 **Consultations with the Hawai'i Office of Planning**

19 For compliance with Federal Coastal Zone Consistency regulations (15 CFR Part 930) and the
20 Hawai'i Coastal Zone Management (CZM) Program, MDA consulted with the Hawai'i Office of
21 Planning on aspects of the Proposed Action that potentially could affect the coastal zone.
22 Although federally owned, leased, or controlled facilities are excluded from the state's CZM
23 Program, federal agency activities must be consistent to the maximum extent practicable with
24 the enforceable policies of a state program. Although not expected, any effects outside the
25 federal lands and within the coastal zone would need to be consistent with the CZM Program.

26 In accordance with CZM Program requirements and procedures, MDA submitted an application
27 for consistency review to the Office of Planning in **2023**. A summary of the
28 consistency review is provided in **Section 5.1.10**, and a copy of the application submittal for the
29 Preferred Alternative can be found in **Appendix E**. MDA has determined that the HDR-H PMRF
30 alternative (the Preferred Alternative) would be consistent with the enforceable policies of the
31 CZM Program in Hawai'i and compatible with the objectives, policies, and guidance of other
32 state and local land use plans. Upon completion of the agency's consistency determination,
33 MDA will coordinate with the Hawai'i Office of Planning to resolve any outstanding issues and
34 document the resolutions in the Final EIS.

35 **1.10 Summary of Public Participation**

36 The CEQ and MDA regulations and procedures for implementing NEPA require an early and
37 open process for determining the scope of issues related to the Proposed Action. The purpose
38 of the scoping process is to identify public and agency concerns, and determine the significant
39 environmental issues related to the Proposed Action.

1 Involving the public in the scoping process provides for open communication between federal
2 agencies and the public, and promotes better decision making. Several opportunities and
3 means for public involvement during scoping and throughout the preparation of this EIS are
4 being conducted in coordination with the host installations and other stakeholders. Comments
5 and questions received during this process are used to assist MDA in identifying potential
6 environmental impacts on the quality of the human and natural environments.

7 As the lead agency, MDA began preliminary scoping in 2016 by coordinating with the
8 environmental staff at potential host installations for HDR-H deployment in order to obtain local
9 knowledge and expertise, and identify relationships with environmental regulatory and resource
10 agencies. Starting in 2017, MDA initiated discussions and coordination with the cooperating
11 agencies (**Section 1.6**) for their jurisdiction or special expertise, conducted visits at each
12 alternative to discuss details of the Proposed Action with installation environmental staff, and
13 initiated meetings with other federal and state regulatory and resource agencies having
14 jurisdiction or interest/expertise with the locations. These meetings assisted MDA in better
15 defining the aspects of the Proposed Action that may have potentially significant effects or
16 involve controversy, and helped in determining data gaps.

17 In 2018, MDA conducted a formal public scoping process for the HDR-H EIS that was
18 advertised in the *Federal Register* and local newspapers. The scoping period ran from June 1 to
19 July 23, 2018, and included three public scoping meetings held on the island of O‘ahu. During
20 this scoping effort, MDA identified three alternatives on O‘ahu for the proposed HDR-H complex.
21 The HDR-H alternatives included KR on state-owned land adjacent to KPSFS, and two
22 alternative sites at U.S. Army KTA. In 2020, MDA removed the KR alternative and one of the
23 KTA alternatives (KTA Site 2) from further consideration for HDR-H, and added a new
24 alternative at U.S. Navy PMRF on the island of Kaua‘i.

25 Because of changes in the HDR-H alternatives that occurred after the 2018 scoping effort, MDA
26 reopened the public scoping period for the EIS from February 26 to April 12, 2021. MDA was
27 not able to hold in-person public scoping meetings on island due to the ongoing COVID-19
28 public health emergency. Consistent with the Centers for Disease Control and Prevention’s
29 guidance regarding large events and mass gatherings, MDA provided an online open house
30 website and held two telephone public meetings in place of in-person meetings.

31 The comments received from both the 2018 and 2021 scoping phases were used by MDA to
32 help identify the environmental issues and public concerns that needed to be addressed in the
33 EIS analysis. A summary of each of the scoping phases is described in the sections that follow.

34 **1.10.1 2018 Scoping Process and Comments**

35 To formally initiate the public scoping process for this EIS, MDA published the Notice of Intent
36 (NOI) in the *Federal Register* (83 FR 25442) on June 1, 2018. The NOI described the purpose
37 and need for the HDR-H deployment, identified the alternatives to be analyzed in this EIS
38 (including the No Action Alternative), listed environmental/resource categories for which impacts
39 would be assessed, invited written comments, and identified local communities where public

1 scoping meetings would be held. Because MDA had planned at the time for the EIS to comply
2 fully with the provisions of HEPA (see **Section 1.7**), an EIS Preparation Notice was published in
3 the Hawai'i Office of Environmental Quality Control Bulletin (*The Environmental Notice*) on June
4 8, 2018, announcing preparation of an EIS for the proposed HDR-H. Both notices can be found
5 in **Appendix F**.

6 Public notices were also published in the O'ahu newspapers listed here beginning on June 8
7 through June 20, 2018, with the exception of one online newspaper, the *Hawai'i Free Press*,
8 that displayed the notice until June 23, 2018. Publication dates were dependent on the
9 newspaper's publication frequency (e.g., daily, semi-weekly, weekly). The newspaper notices
10 provided instructions for submitting comments, and identified the dates and locations of the
11 public meetings:

- 12 • *Hawai'i Catholic Herald* – June 15, 2018
- 13 • *Hawai'i Free Press* – June 8 to 23, 2018
- 14 • *The Hawai'i Hochi* – June 8, 13, and 19, 2018
- 15 • *Honolulu Star Advertiser* – June 8, 12, and 18, 2018
- 16 • *MidWeek* – June 13 and 20, 2018
- 17 • *North Shore News* – June 20, 2018 (arrived in mailboxes on June 19, 2018)

18 During scoping, MDA invited various agencies, officials, and the public to assist in determining
19 the scope and significant issues to be evaluated in the EIS. Stakeholder emails and letters were
20 sent out concurrent with the NOI publication to 173 federal, state, and local elected officials;
21 federal, state, and local agencies; special interest groups and local organizations; and NHOs.
22 The MDA Public Affairs Office also distributed a news release to local media outlets about the
23 Proposed Action and EIS on June 8, 2018.

24 Within the published notices, news releases, letters, and emails that were distributed, MDA
25 identified a public webpage on the HDR-H EIS. The MDA webpage was updated to provide the
26 public with information about the Proposed Action, the public scoping meetings, and where to
27 send comments. The website address, <https://www.mda.mil/hdrh.html>, continues to be updated
28 as the EIS process progresses.

29 During the public scoping period, MDA held three public scoping meetings from June 19 to 21,
30 2018, in Hale'iwa, Honolulu, and Wai'anae, all on the island of O'ahu. The respective number of
31 attendees at each meeting was 39, 50, and 53. Each meeting was 3 hours in duration and
32 included informational poster stations and a video station staffed by MDA, DAF, and USAG-HI
33 representatives. Welcome flyers, fact sheet handouts, and comment forms were provided to
34 attendees. Copies of the posters and the EIS Preparation Notice were available and provided
35 upon request. Individuals could submit completed comment forms at the meetings, by mail, or
36 via email. At each meeting, a stenographer station was provided to record oral comments.
37 Individuals could verbally state their comments, which were then transcribed verbatim.

38 Throughout the scoping period, six government agencies and officials responded and provided
39 comments. However, most commenters were from organizations and individuals within the local
40 communities. A total of 66 unique submissions were received, where each individual letter,

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1 email message, comment form, and oral testimony (transcribed at a public meeting) represents
 2 a single submission. In a few cases, a single organization or individual responded more than
 3 once. A breakdown of how and where submissions were received is as follows:

- 4 • Emailed messages/letters/forms = 33 total
- 5 • Public meeting comment forms and oral comments transcribed = 33 total
 - 6 ○ Hale'iwa, Hawai'i = 7
 - 7 ○ Honolulu, Hawai'i = 7
 - 8 ○ Wai'anae, Hawai'i = 19

9 From all of the submissions, 194 individual scoping comments were identified. Among the
 10 comments received, some issues were raised more frequently than others, including the EIS
 11 process and public meetings, Proposed Action alternatives and the siting process, biological
 12 resource impacts, and health and safety impacts (particularly with regards to radar
 13 electromagnetic emissions). **Table 1.10-1** summarizes the distribution of comments across the
 14 various EIS environmental/resource categories and related topics. Several issues, questions,
 15 and concerns outside the scope of the EIS were also raised and included such topics as system
 16 performance, fiscal responsibility and budget allocation, and the return of government lands to
 17 Hawaiian residents.

18 **Table 1.10-1. 2018 Scoping Comments by Category/Topic**

Comment Category/Topic	Number of Comments
EIS Process, Public Outreach	23
Proposed Action Description, Alternatives, and the Siting Process	31
Air Quality (includes climate change)	1
Airspace Management (includes airports and airfields, and air traffic control)	8
Biological Resources (includes radar electromagnetic emission effects)	21
Cultural Resources	9
Geology and Soils	1
Hazardous Materials and Waste Management	2
Health and Safety (includes radar electromagnetic emission effects)	21
Infrastructure (includes utilities, solid waste, and energy conservation)	8
Land Use (includes recreation, land ownership, and coastal zone)	19
Noise and Vibration	1
Socioeconomics and Environmental Justice	2
Transportation (includes traffic)	9
Visual Resources	4
Water Resources (includes wetlands, surface water, groundwater, and flooding)	3
Outside Scope of the EIS	31
TOTAL	194

1 1.10.2 2021 Scoping Process and Comments

2 For the 2021 reopening of the public scoping process, MDA published an NOI for this EIS in the
3 *Federal Register* (86 FR 11734) on February 26, 2021, followed by an NOI correction (86 FR
4 13345) published on March 8, 2021. The NOI described the purpose of the proposed HDR-H,
5 the changes in the alternatives that occurred since 2018, where more information could be
6 found on MDA's website (<https://www.mda.mil/hdrh.html>), and how the public could provide
7 comments on the scope of the EIS. An additional announcement for the reopening of the
8 scoping period was published in *The Environmental Notice* on March 8, 2021, which also
9 explained why HEPA compliance requirements were no longer triggered. All three notices can
10 be found in **Appendix F**.

11 For this scoping period, public notices were also published in the following Kaua'i, O'ahu, and
12 Maui newspapers. The publications began on February 27 and ended on March 19, 2021, with
13 the notices published twice in each newspaper. The newspaper notices provided instructions for
14 submitting comments, and identified the dates and call numbers for two telephone public
15 meetings:

16 • Kaua'i Newspapers:

- 17 ○ *The Garden Island* – February 28 and March 12, 2021
- 18 ○ *Midweek* – March 3 and 17, 2021

19 • O'ahu Newspapers:

- 20 ○ *Hawai'i Catholic Herald* – March 5 and 19, 2021
- 21 ○ *Hawai'i Free Press* – March 1 and 15, 2021
- 22 ○ *The Hawai'i Hochi* – March 2 and 16, 2021
- 23 ○ *Honolulu Star Advertiser* – February 28 and March 12, 2021
- 24 ○ *MidWeek* – March 3 and 17, 2021

25 • Maui Newspapers:

- 26 ○ *Maui News* – February 27 and March 12, 2021

27 As was identified in the NOI and newspaper publications, this reopening of the public scoping
28 also served to support compliance with NHPA Section 106 and its implementing regulations at
29 36 CFR Part 800. Further information on NHPA Section 106 compliance and consultation efforts
30 is provided in **Section 1.9**.

31 Just as during the 2018 scoping period, MDA invited agencies, officials, and the public to assist
32 in determining the scope and significant issues to be evaluated in the EIS. Stakeholder emails,
33 letters, and postcards were sent out concurrent with the NOI publication to 245 federal, state,
34 and local elected officials; federal, state, and local agencies; special interest groups and local
35 organizations; and NHOs.

36 Within the published notices, letters, and postcards that were distributed, MDA identified the
37 HDR-H EIS public webpage at <https://www.mda.mil/hdrh.html> as a source of additional

1 information. In addition to fact sheets and other background information placed on the webpage,
2 MDA included a link to an online open house website that provided more detailed information on
3 the MDS, the Proposed Action and alternatives, and the EIS process. It also provided the ability
4 to submit comments on the scope of the EIS.

5 Due to COVID-19, in-person meetings in Hawai'i could not be held at the time the reopening of
6 scoping occurred. In lieu of such meetings, MDA held two telephone scoping meetings that
7 were open to anyone. The meetings occurred on March 23, 2021, from 4 p.m. to 6 p.m. Hawai'i
8 Standard Time, and on March 25, 2021, from 6 p.m. to 8 p.m. Hawai'i Standard Time. The use
9 of telephone meetings was selected because not everyone has access to the internet or the
10 connectivity (bandwidth) required for video meeting platforms, which can sometimes lead to
11 unpredictable audio and video quality. Telephone meetings, such as the two held, have been
12 used by DoD for other NEPA-related public engagements and have proven to be a successful
13 outreach option.

14 For the telephone meetings held on March 23 and 25, the respective number of participants on
15 each call was 85 and 62. In addition to the meeting host, each call was staffed by MDA, DAF,
16 USAG-HI, and U.S. Navy representatives, consultants, and contractor specialists. Each meeting
17 began with an explanation of the meeting objectives, rules, and procedures for providing oral or
18 other comments. This was followed by background information on how missile defense works,
19 the purpose of the Proposed Action, the Proposed Action and alternatives, and the EIS analysis.
20 Participants on the phone that wished to provide comments were placed in a queue and called
21 upon when it was their turn to speak. Both meetings were transcribed in their entirety so as to
22 ensure all discussions and comments received were properly documented.

23 During the 2021 reopened scoping period that ended on April 12, 2021, a total of 503 unique
24 "submissions" were received, where each individual letter, email message, website submittal,
25 and oral testimony (transcribed) represents a single submission. Four government agencies and
26 officials responded; however, most commentors were from organizations and individuals within
27 the local communities on Kaua'i and O'ahu. In a few cases, a single organization or individual
28 responded more than once. A breakdown of how commentor submissions were received is as
29 follows:

- 30 • Email = 288
- 31 • Voicemail = 102
- 32 • Open house website = 80
- 33 • Public telephone meetings = 28
- 34 • U.S. Postal Service delivery = 3
- 35 • Fax = 2

36 From all of the submissions, approximately 2,566 individual scoping comments were identified.
37 Among the comments received, some issues were raised more frequently than others,
38 especially health and safety and the potential effects of radar emissions. Other comment topics
39 raised most frequently included biological and cultural resources, hazardous materials and

1 waste, infrastructure (utilities), transportation (traffic), and water resources. **Table 1.10-2**
 2 summarizes the distribution of comments across the various EIS environmental/resource
 3 categories and related topics. Several issues, questions, and/or concerns outside the scope of
 4 the EIS were also raised, which included fiscal responsibility, the return of government lands to
 5 the public, and opposition to the Proposed Action. Issues that are outside the scope of the EIS
 6 are not evaluated in this document.

7 **Table 1.10-2. 2021 Scoping Comments by Category/Topic**

Comment Category/Topic	Number of Comments
EIS Process, Public Outreach	5
Proposed Action Description, Alternatives, and the Siting Process	10
Air Quality (includes climate change)	188
Airspace Management (includes airports and airfields, and air traffic control)	183
Biological Resources (includes electromagnetic emission effects)	235
Cultural Resources	213
Geology and Soils	8
Hazardous Materials and Waste Management	210
Health and Safety (includes electromagnetic emission effects)	468
Infrastructure (includes utilities, solid waste, and energy conservation)	202
Land Use (includes recreation, land ownership, and coastal zone)	204
Noise and Vibration	11
Socioeconomics and Environmental Justice	72
Transportation (includes traffic)	213
Visual Resources	10
Water Resources (includes wetlands, surface water, groundwater, and flooding)	224
Outside Scope of the EIS	110
TOTAL	2,566

8 **1.10.3 Other Public Outreach**

9 In addition to public scoping meetings, MDA communicated with state and local agencies and
 10 officials, community leaders, businesses, and other stakeholder groups as part of the public
 11 outreach and public participation process. **Chapter 6.0** lists those agencies, offices, and
 12 organizations that were contacted or consulted.

13 **1.10.4 Draft EIS Comment Period**

14 This EIS includes an assessment and disclosure of potential environmental impacts resulting
 15 from the Proposed Action and No Action Alternative. Stakeholder groups and the public are
 16 encouraged to provide comments on the Draft EIS during the public comment period.

17 Comments on the Draft EIS will be accepted for a minimum of 60 days during the public
 18 comment period, which will be advertised in a Notice of Availability published in the *Federal*

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1 *Register* and in local news media. During this time, public comment meetings will be held as
2 advertised in the local news media. Further information can be found on MDA's website at
3 <https://www.mda.mil/hdrh.html>.

4