

1 **4.5 MAUI**

2 **4.5.1 MAUI OFFSHORE**

3 Maui Offshore is used for submarine training. Table 4.5.1-1 lists ongoing training and research,
4 development, test, and evaluation (RDT&E) operations for the No-action Alternative and
5 proposed training and RDT&E operations for Alternatives 1 and 2 in Maui Offshore. Alternative
6 2 is the preferred alternative.

Table 4.5.1-1. Training and RDT&E Operations Occurring in the Maui Offshore

Training Operations	Research, Development, Test, and Evaluation (RDT&E) Operations
<ul style="list-style-type: none"> • Anti-Submarine Warfare (ASW) Tracking Exercise • ASW Torpedo Exercise • Major Integrated ASW Training Exercise 	<ul style="list-style-type: none"> • Portable Undersea Tracking Range (Alternative 1) • Large Area Tracking Range Upgrade (Alternative 1) • Enhanced Electronic Warfare Training (Alternative 1) • Expanded Training Capability for Transient Air Wings (Alternative 1)

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8 A review of the 13 environmental resources against program operations determined there would
9 be no impacts from training and RDT&E operations under the No-action Alternative, Alternative
10 1, or Alternative 2 for Maui Offshore. Initial analysis indicated that the proposed alternatives
11 would not result in either short- or long-term impacts to air quality, airspace, cultural resources,
12 geology and soils, hazardous materials and hazardous waste, health and safety, land use,
13 noise, socioeconomics, transportation, utilities, and water resources.

14 There would be no emissions from training and RDT&E operations affecting the air quality for
15 the Maui Offshore area. Use of this area does not require control of the airspace. This site has
16 no prehistoric or historic artifacts, archaeological sites (including underwater sites), historic
17 buildings or structures, or traditional resources that could be affected by Hawaii Range Complex
18 (HRC) operations. Training and RDT&E operations associated with this area would adhere to
19 policies and regulations governing hazardous materials and waste, health and safety, and
20 noise, as discussed in Appendix C. There would be no offshore HRC training or RDT&E
21 operations in Maui Offshore that would adversely affect earth resources (land forms, geology
22 and soils). The socioeconomic characteristics of Maui are not affected by operations associated
23 with Maui Offshore. HRC training and RDT&E operations would not affect local transportation
24 levels of service or utilities. The area is compatible with existing and surrounding land uses.
25 Water resources would not be affected by the movement of submarines during the training
26 operations.

1 **4.5.1.1 MAUI OFFSHORE**

2 **4.5.1.1.1 Biological Resources—Maui Offshore**

3 **4.5.1.1.1.1 No-action Alternative (Biological Resources—Maui Offshore)**

4 **HRC Training Operations and Major Exercises**

5 According to the Hawaiian Islands Humpback Whale National Marine Sanctuary Environmental
6 Impact Statement (EIS) (U.S. Department of Commerce, National Oceanic and Atmospheric
7 Administration and State of Hawaii, Office of Planning, 1997), "... the waters adjacent to Maui,
8 Molokai, and Lanai are important training areas for Navy ships homeported in Pearl Harbor.
9 The channel between Maui, Lanai and Molokai is extensively used for biennial RIMPAC [Rim of
10 the Pacific] exercises, EOD/MCM [explosive ordnance disposal/mine countermeasures]
11 exercises, and as well for shallow-water ASW [anti-submarine warfare]... The areas inside the
12 100-fathom isobath surrounding Maui, Molokai and Lanai, and specifically the channel between
13 these islands, are used for shallow-water ASW operations."

14 The waters inside the 100-fathom isobath surrounding Maui, Molokai, and Lanai, and
15 specifically the channel between these islands, would continue to be used for RIMPAC
16 Exercises, including EOD and MCM Exercises, as well as shallow-water ASW exercises.

17 Submarine operations occur throughout much of the HRC. Weapon firing mainly occurs in the
18 Pacific Missile Range Facility (PMRF) Shallow Water Training Range and the training areas
19 within the 100-fathom isobath contour between the islands of Kahoolawe, Maui, Lanai, and
20 Molokai. Most submarine operations occur between approximately 15 fathoms below the water
21 surface and the ocean floor. Multiple in-water runs of exercise MK-48 torpedoes (with no
22 warheads) using one submarine as both target and launch platform occur in for the Penguin
23 Bank area.

24 Endangered humpback whales are normally seen during the winter months, November to May,
25 in the region of influence, with peak concentrations in mid-February to mid-March. The whales
26 seem to prefer areas within the 100-fathom contours such as the Molokai–Lanai–Maui–
27 Kahoolawe channels and Penguin Bank. Humpback whale sightings are mainly concentrated
28 north of Kahoolawe in protected channel areas.

29 Major Integrated ASW Training Exercises involve multiple air, surface, and subsurface units of
30 the ASW Tracking Exercise combined, over a period of several days. These large-scale ASW
31 Exercises occur as part of RIMPAC, Undersea Warfare Exercise (USWEX), or other exercises
32 where one or more Strike Groups converge to train in the range complex. No new or unique
33 operations take place during an integrated event; it is merely the compilation of numerous ASW
34 operations as conducted by multiple units over a period of time ranging from 3 to 30 days.

35 Personnel are aware that they are not to harm or harass whales, Hawaiian monk seals, or sea
36 turtles. The Navy has conducted these submarine operations in the Hawaiian Islands for
37 decades, and no harmful effects on these species have been observed to date. As part of the
38 required clearance before an exercise, the target area will be inspected visually and determined
39 to be clear. Aircrews are trained to visually scan the surface of the water for anomalies. Due in
40 part to this additional emphasis on visual scanning and the availability of extra crew members to
41 conduct such searches, it is unlikely that whales, monk seals, or sea turtles would be

1 undetected when the aircraft are flying at lower altitudes. If animals are detected, the
2 submarine's path can be adjusted. Submarine operations as part of RIMPAC Exercises are
3 conducted during summer months in part to minimize the potential for impacts to humpback
4 whales in the area. Submarine operations, including those in existing underwater training areas
5 between the islands of Kahoolawe, Maui, Lanai, and Molokai, follow established clearance
6 procedures to ensure the activity will not adversely impact marine mammals and sea turtles.
7 The potential to harm whales, monk seals, or sea turtles from the firing and tracking of non-
8 explosive torpedoes in these training areas, as part of the various Major Exercises, is remote.

9 **4.5.1.1.1.2 Alternative 1 (Biological Resources—Maui Offshore)**

10 **Increased Tempo and Frequency of Training Operations**

11 Alternative 1 would include up to six USWEX per year, the RIMPAC biennial exercise, including
12 two Strike Groups conducting training operations simultaneously in the HRC, and other
13 continuing training operations (See Table 2.2.3.1-1). The number of tracking and torpedo
14 exercises would not increase, but the tempo of the exercises may. Two additional Major
15 Integrated ASW Training Exercises would be added as part of Alternative 1. The likelihood of a
16 similar increase in adverse impacts to biological resources would be small because no new or
17 unique operations take place, personnel are aware that they are not to harm or harass whales,
18 monk seals, or sea turtles, and the Navy would continue to monitor its operations for potential
19 impacts.

20 **HRC Enhancements**

21 The Portable Undersea Tracking Range would be developed to provide submarine training in
22 areas where the ocean depth is between 300 and 2,000 feet (ft) and at least 3 nautical miles
23 from land (Figure 2.2.3.5.3-1). The underwater range instrumentation hardware could be
24 deployed, and a temporary range created anywhere within the region shown in Figure
25 2.2.3.5.3-1. The Portable Undersea Tracking Range would also be used in areas around Maui
26 with water depths greater than 300 ft. When training is complete, the Range equipment could
27 be recovered and moved to another location. All of these areas have been used for submarine
28 training since World War II. Other than the temporary disturbance to marine species during
29 instrumentation installation and recovery, no impacts would be expected to occur.

30 The PMRF capability for Electronic Warfare training would be enhanced to include sites on
31 other islands (e.g., Maui and Hawaii). During Electronic Warfare training, Electronic Warfare
32 emitters transmit signals that replicate hostile radars and weapon systems. Ship and aircraft
33 crews attempt to identify the electronic signals, and react defensively if appropriate.
34 Transmitters could be antennas or mobile vehicles. Where possible, existing towers would be
35 chosen to incorporate new equipment with minimal modifications needed and no substantial
36 impacts to wildlife. If new towers were to be built and operated, follow-on environmental
37 analyses beyond this EIS/ Overseas EIS (OEIS) would be required before such activities could
38 occur.

39 As part of the Joint National Training Capability, PMRF would provide dedicated equipment to
40 enable Mid-Pacific and transiting Strike Groups to participate in either live or virtual exercises.
41 This capability would allow links between Third Fleet and Seventh Fleet to Mid-Pacific to
42 demonstrate group level Navy Continuous Training Environment. PMRF would be able to
43 participate in major in-port exercises with at-sea assets. A node would be created in an existing
44 building at PMRF. The node would connect to a sound source in the ocean, such as a transiting

1 submarine in the Maui Offshore area. The sound source would have three alternatives for
2 bandwidth: (1) less than 1 kilohertz (kHz); (2) between 3 kHz and 8 kHz; and (3) greater than
3 10 kHz. These bandwidths are not anticipated to affect marine mammals or sea turtles. The
4 effects of sound in the water are discussed in Section 4.1.2.

5 **4.5.1.1.1.3 Alternative 2 (Biological Resources—Maui Offshore)**

6 **Increased Tempo and Frequency of Training Operations**

7 Under Alternative 2, the tempo of training operations would be increased and the frequency of
8 operations could also increase. However, the potential for effects to marine mammals and sea
9 turtles would be minor since personnel are aware that they are not to harm them, clearance
10 procedures are established, and similar to those occurring during current training operations, as
11 described above.

1 **4.5.1.2 SHALLOW-WATER MINEFIELD SONAR TRAINING AREA**
2 **OFFSHORE**

3 A review of the 13 environmental resources against program operations determined that the
4 proposed alternatives would not result in either short- or long-term environmental impacts at the
5 Shallow-water Minefield Sonar Training Area. Alternative 2 is the preferred alternative.

6 Use of the Shallow-water Minefield Sonar Training Area does not require control of the airspace
7 above this area. There are no reports of emissions from training or RDT&E operations affecting
8 the air quality in the area. Training and RDT&E operations associated with this site adhere to
9 policies and regulations governing hazardous materials and waste, health and safety, and
10 noise, as discussed in Appendix C. During the preparation of a 1997 Environmental
11 Assessment, exploration of the site indicated no archeological or historic submerged sites or
12 coral reefs in the area.

13 The Shallow-water Minefield Training Area is located within the Hawaiian Islands Humpback
14 Whale National Marine Sanctuary; however, the inert shapes and mine detection equipment
15 used in operations at the shallow water training area would be clean and free from residual
16 materials and invasive species from prior use, and no environmental effects on biological
17 resources are anticipated. Since the shapes will rest on the ocean bottom, they would pose no
18 entanglement hazard to marine mammals and sea turtles. A minimum of one inspection per
19 year of the training area and mooring cables/anchor chain is performed.

20 The Shallow-water Minefield Sonar Training Area is compatible with existing surrounding land
21 uses. There are no earth resources (land forms, geology and soils) that are adversely affected
22 by operations associated with the site. HRC training and RDT&E operations would not affect
23 local transportation levels of service or utilities. The socioeconomic characteristics of Maui are
24 not affected by training and RDT&E operations associated with this training area. Additionally,
25 water resources would not be affected by the movement of submarines during the training and
26 RDT&E operations.

27

1 **4.5.2 MAUI ONSHORE**

2 **4.5.2.1 MAUI SPACE SURVEILLANCE SYSTEM**

3 A review of the 13 environmental resources against program training and RDT&E operations
4 determined that the proposed alternatives would not result in either short- or long-term
5 environmental impacts at the Maui Space Surveillance Site. Alternative 2 is the preferred
6 alternative.

7 The Maui Space Surveillance System is located within 6.2 miles of the Haleakala National Park,
8 which is a prevention of significant deterioration Class I area, as defined by the Clean Air Act.
9 No air emissions would be generated from training RDT&E operations unless use of diesel
10 generators would be required for backup power; therefore, the proposed alternatives would not
11 affect this special air quality designation. The site does not affect the existing airspace structure
12 in the region. Because no ground disturbance or building modifications would occur as a result
13 of proposed training and RDT&E operations, there would be no impact to biological resources,
14 cultural resources, or geology and soils.

15 The use of hazardous materials and generation of hazardous waste at Maui Space Surveillance
16 System, would be in accordance with applicable regulations. There are established safety
17 zones around electromagnetic radiation hazards, which eliminate health and safety issues. The
18 site is compatible with existing surrounding land uses. No noise is generated by training and
19 RDT&E operations, and the site is operated by up to 60 persons. This small staff would not
20 affect local transportation levels of service or utilities. There is no socioeconomic impact from
21 training and RDT&E operations. Training and RDT&E operations would not generate any waste
22 streams that could impact local water quality.

1 **4.5.2.2 MAUI HIGH PERFORMANCE COMPUTING CENTER**

2 A review of the 13 environmental resources against program activities determined that the
3 proposed alternatives would not result in either short- or long-term environmental impacts at the
4 Maui High Performance Computing Center. Alternative 2 is the preferred alternative.

5 No air emissions would be generated from training and RDT&E operations at the Maui High
6 Performance Computing Center unless use of diesel generators would be required for backup
7 power. The site does not affect the existing airspace structure in the region. Because no
8 ground disturbance or building modifications would occur, there would be no impact to biological
9 resources, cultural resources, or geology and soils.

10 Use of the Maui High Performance Computing Center does require small amounts of hazardous
11 materials for facility maintenance and generates small amounts of hazardous waste. All
12 hazardous materials used and hazardous waste generated would continue to be managed in
13 accordance with applicable regulations. There is no electromagnetic radiation generated at the
14 site; therefore, there are no public health and safety issues.

15 The Maui High Performance Computing Center is compatible with existing surrounding land
16 uses. No noise is generated by training and RDT&E operations at the site. HRC training and
17 RDT&E operations would not affect local transportation levels of service or utilities. There is no
18 socioeconomic impact from use of the site. HRC training and RDT&E operations at the site
19 would not generate any waste streams that could impact local water quality.

1 **4.5.2.3 SANDIA MAUI HALEAKALA FACILITY**

2 A review of the 13 environmental resources against program activities determined that the
3 proposed alternatives would not result in either short- or long-term environmental impacts at the
4 Sandia Maui Haleakala Facility. Alternative 2 is the preferred alternative.

5 The Sandia Maui Haleakala Facility is located within 6.2 miles of the Haleakala National Park,
6 which is a prevention of significant deterioration Class I area, as defined by the Clean Air Act.
7 No air emissions would be generated from site operations unless use of diesel generators would
8 be required for backup power; therefore, the proposed alternatives would not affect this special
9 air quality designation. The site does not affect the existing airspace structure in the region.
10 Because no ground disturbance or building modifications would occur, there would be no impact
11 to biological resources, cultural resources, or geology and soils.

12 Use of the Sandia Maui Haleakala Facility site does require small amounts of hazardous
13 materials for facility maintenance and generates small amounts of hazardous waste. All
14 hazardous materials used and hazardous waste generated would continue to be managed in
15 accordance with applicable regulations. There is no electromagnetic radiation generated at the
16 site; therefore, there are no public health and safety issues. The site is compatible with existing
17 surrounding land uses.

18 No noise is generated by training and RDT&E operations at the Sandia Maui Haleakala Facility.
19 HRC training and RDT&E operations would not affect local transportation levels of service or
20 utilities. There is no socioeconomic impact from use of the site. HRC training and RDT&E
21 operations at the site would not generate any waste streams that could impact local water
22 quality.

1 **4.5.2.4 MOLOKAI MOBILE TRANSMITTER SITE**

2 A review of the 13 environmental resources against program activities determined that the
3 proposed alternatives would not result in either short- or long-term environmental impacts at the
4 Molokai Mobile Transmitter Site. Alternative 2 is the preferred alternative.

5 There are no reports of emissions from training or RDT&E operations affecting the air quality in
6 the area. The site does not affect the existing airspace structure in the region. Because no
7 ground disturbance or building modifications would occur, there would be no impact to biological
8 resources, cultural resources, or geology and soils.

9 Use of the Molokai Mobile Transmitter Site does require small amounts of hazardous materials
10 and generates small amounts of hazardous waste. All hazardous materials used and
11 hazardous waste generated would continue to be managed in accordance with applicable
12 regulations. There are established safety zones, which eliminate health and safety issues. The
13 site is compatible with existing surrounding land uses.

14 No noise is generated by training and RDT&E operations at the Molokai Mobile Transmitter Site.
15 HRC training and RDT&E operations would not affect local transportation levels of service or
16 utilities. There is no socioeconomic impact from use of the site. HRC training and RDT&E
17 operations at the site would not generate any waste streams that could impact local water
18 quality.

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