#### CALIFORNIA COASTAL COMMISSION

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CD-0005-21 (U.S. Air Force)
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#### **EXHIBITS**

#### **Table of Contents**

Exhibit 1 – VAFB and Launch Complex LF-05

Exhibit 2 – ERCA Cannon Launch and Firing Area

Exhibit 3 – Debris Footprint

Exhibit 4 – LF-05 Existing Conditions, and 1250 ft. Safety Arc

Exhibit 5 – Red Legged Frog Habitat

Exhibit 6 – Test Events

Exhibit 7 – Potential Effects on Endangered and Threatened Species



Figure 2-1: Location of LF-05 and Temporary Radar Site

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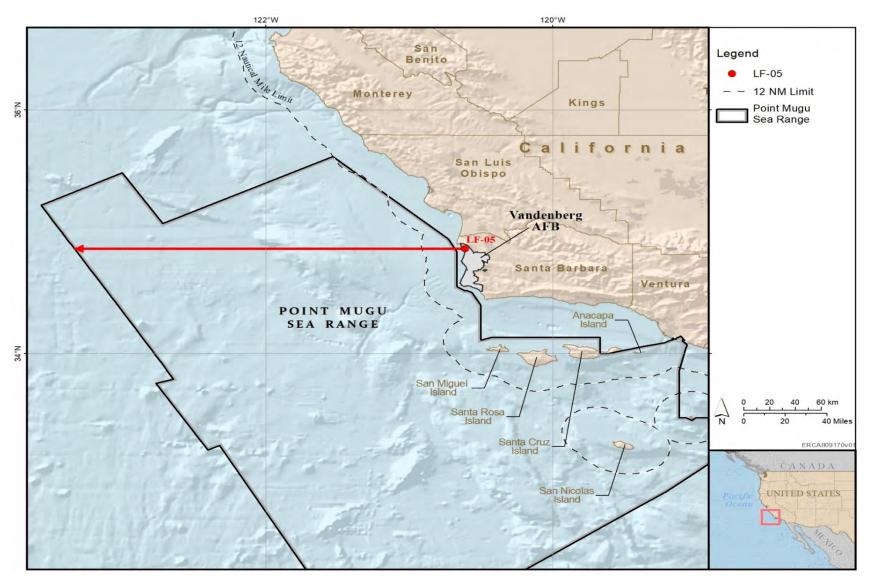


Figure 2-2: ERCA II Launch and Firing Area

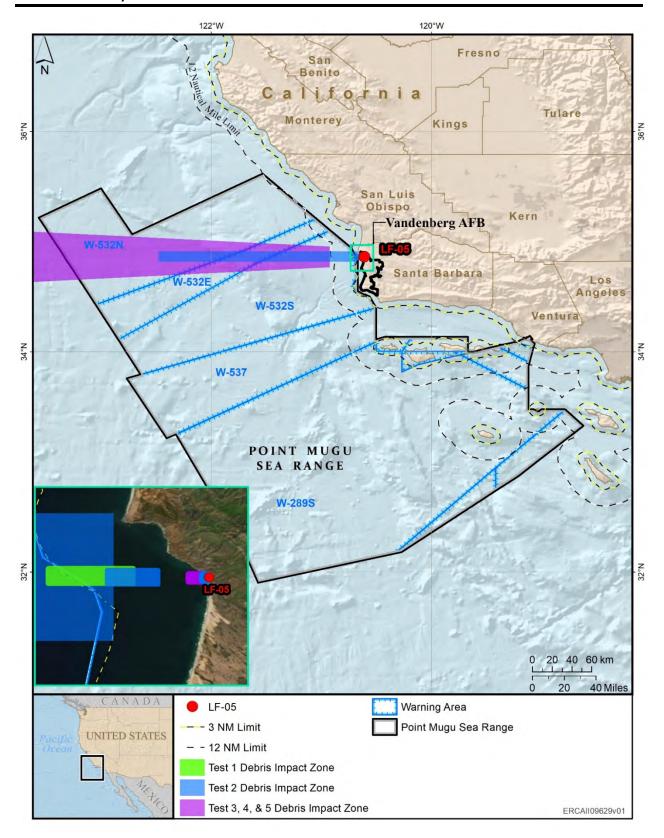


Figure 2-3: Test Debris Impact Zone

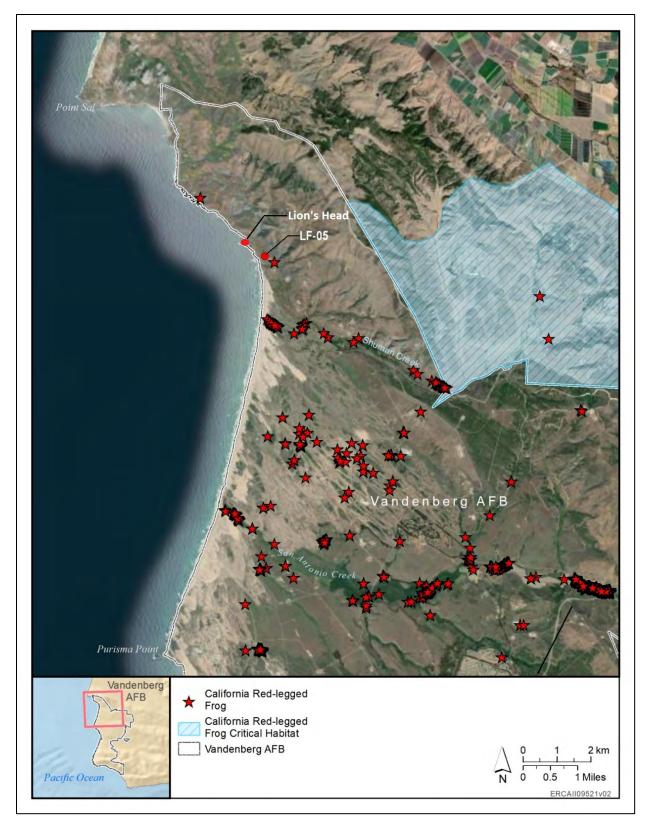
### **Figures**



Figure 1. LF-05 Existing Conditions (Google Earth imagery).



Figure 2. Google Earth image below with 1,250-foot safety arc.



**Figure 3.** California red-legged frog localities in the vicinity of LF-05.

#### 1 2.1.4 TESTING SCHEDULE

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- 2 A total of 77 firings would be conducted at the LF-05 site starting in 2022 through 2025. Table 2-2
- 3 presents the total number of proposed ERCA II tests (77) and total number of test event days (51). For
- 4 example, multiple tests (e.g., Test 1) would be conducted during a test event day.
- 5 Each of the five test events presented in Table 2-2 would include logistics and testing over a 2-to-7-week
- 6 period. All test events would require an 8-hour continuous closure period for a designated closure area
- 7 associated with a 1,250 ft. arc around LF-05 when energetics are present on site. This designated 8-hour
- 8 closure area would include Point Sal Road and the beach area adjacent to LF-05.

Table 2-2: ERCA II Test Schedule

| Test Event | Test Schedule | Projectile Type | Number<br>of Tests | Number<br>of Test<br>Event<br>Days |
|------------|---------------|-----------------|--------------------|------------------------------------|
| Test 1     | 2022          | Α               | 35                 | 30                                 |
| Test 2     |               | А               | 3                  | 3                                  |
|            | 2023          | В               | 3                  |                                    |
| Test 3     |               | А               | 6                  | 6                                  |
|            |               | С               | 6                  | b                                  |
| Test 4     | 2024          | А               | 6                  | - 6                                |
|            |               | С               | 6                  |                                    |
| Test 5     | 2025          | А               | 6                  | 6                                  |
|            | 2025          | С               | 6                  | Ö                                  |
| Total      |               |                 | 77                 | 51                                 |

#### 2.1.5 TESTING REGIME

- 11 ERCA II activities would be similar to testing activities that are currently conducted at the PMSR
- 12 (e.g., directed energy weapons, ground launched targets). As with the other projectiles, the ERCA II
- 13 guided projectile is launched with solid propellant, both out of the artillery weapon and through its
- 14 integrated rocket motor. These types of activities are conducted daily within PMSR Special Use Areas
- 15 (predominantly designated Warning Areas). A Warning Area is airspace of defined dimensions
- 16 (extending outward from 3 NM off the coast of the United States) that is designated to contain activity
- 17 that may be hazardous to nonparticipating aircraft. The purpose of a warning area is to warn
- 18 nonparticipating pilots of the potential danger from activities being conducted. This is done via Notice to
- 19 Airmen. Associated Notices to Mariners (NTMs) are issued for the sea spaces underneath an active
- Warning Area.

#### 2.1.5.1 Range Safety Procedures for VAFB

• For ERCA II activities, impact debris corridors would be established off the coast to meet security requirements and reduce hazards to persons and property during testing activities. Safety corridor determinations would be in accordance with Air Force Space Command Manual 91-710.

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## Table 3-3: Determination of Potential Impacts on Endangered and Threatened Species in the Action Area

| Species/DPS  | ESA Effect Determination | MMPA<br>Determination |
|--|--------------------------|-----------------------|
| PLANTS   |                          |                       |
| Gaviota tarplant (Deinandra increscens villosa)                                  | LAA                      | NA                    |
| INVERTEBRATES  |                          |                       |
| Black abalone (Haliotis cracherodii)   | NLAA                     | NA                    |
| FISHES   |                          |                       |
| Steelhead (Oncorhynchus mykiss) Southern California DPS                          | NLAA                     | NA                    |
| AMPHIBIANS   |                          |                       |
| California red-legged frog (Rana draytonii)                                      | LAA                      | NA                    |
| SEA TURTLES  |                          |                       |
| Leatherback sea turtle (Dermochelys coriacea)                                    | NLAA                     | NA                    |
| Loggerhead sea turtle (Caretta caretta) North Pacific Ocean DPS                  | NLAA                     | NA                    |
| MARINE MAMMALS   |                          |                       |
| Suborder Mysticeti (baleen whales)   |                          |                       |
| Blue whale (Balaenoptera musculus)   | NLAA                     | NE                    |
| Fin whale (Balaenoptera physalus)  | NLAA                     | NE                    |
| Gray whale (Eschrichtius robustus) Western North Pacific DPS                     | NLAA                     | NE                    |
| Humpback whale ( <i>Megaptera novaeangliae</i> ) Mexico and Central America DPSs | NLAA                     | NE                    |
| Sei whale (Balaenoptera borealis)  | NLAA                     | NE                    |
| Suborder Odontoceti (toothed cetaceans)  |                          |                       |
| Sperm whale (Physeter macrocephalus)   | NLAA                     | NE                    |
| Family Mustelidae  |                          |                       |
| Southern sea otter (Enhydra lutris nereis)                                       | NLAA                     | NE                    |
| Family Phocidae (true seals)   |                          |                       |
| Harbor seal ( <i>Phoca vituline</i> )  | NL                       | Level B               |
| Northern elephant seal (Mirounga angustirostris)                                 | NL                       | Level B               |
| Family Otariidae (eared seals)   |                          |                       |
| California sea lion (Zalophus californianus)                                     | NL                       | Level B               |
| Guadalupe fur seal (Arctocephalus townsendi)                                     | NLAA                     | NE                    |
| Steller sea lion (Eumetopias jubatus)  | NL                       | Level B               |

### Table 3-3: Determination of Potential Impacts on Endangered and Threatened Species in the Action Area (continued)

| Species/DPS  | ESA Effect Determination | MMPA<br>Determination |
|--|--------------------------|-----------------------|
| BIRDS  |                          |                       |
| California least tern (Sternula antillarum browni) | LAA                      | NA                    |
| Marbled murrelet (Brachyramphus marmoratus)        | NLAA                     | NA                    |
| Western snowy plover (Charadrius nivosus)          | LAA                      | NA                    |

Notes: NA = not applicable; NE = no effect; NL = not listed under the ESA; NLAA = May affect, not likely to adversely affect; LAA = May affect, likely to adversely affect, DPS = Distinct Population Segment, ESA = Endangered Species Act, MMPA = Marine Mammal Protection Act

- 3 The Air Force is consulting with the National Marine Fisheries Service (NMFS) to obtain an Incidental
- 4 Harassment Authorization (IHA) for Level B Harassment (behavioral disruption) of marine mammals that
- 5 would require monitoring and mitigation activities to protect the species. The Air Force is also
- 6 requesting concurrence from NMFS that the Proposed Action may affect, but is not likely to adversely
- 7 affect the black abalone (Haliotis cracherodii), steelhead (Oncorhynchus mykiss) (Southern California
- 8 Distinct Population Segment [DPS]), leatherback sea turtle (Dermochelys coriacea), loggerhead sea turtle
- 9 (Caretta caretta) (north Pacific Ocean DPS), blue whale (Balaenoptera musculus), fin whale
- 10 (Balaenoptera physalus), gray whale (Eschrichtius robustus) (western north Pacific DPS), humpback
- 11 whale (Megaptera novaeangliae) (Mexico and Central America DPSs), sei whale (Balaenoptera borealis),
- 12 sperm whale (Physeter macrocephalus), Guadalupe fur seal (Arctocephalus townsendi), critical habitat
- 13 for the leatherback sea turtle, and proposed critical habitat for the humpback whale. In addition, the Air
- 14 Force is consulting with the United States Fish and Wildlife Service (USFWS) for impacts resulting from
- 15 the Proposed Action that may affect, but are not likely to adversely affect the southern sea otter
- 16 (Enhydra lutris nereis), marbled murrelet (Brachyramphus marmoratus), and is likely to adversely affect
- 17 the Gaviota tarplant, CRLF, California least tern (Sternula antillarum browni), and western snowy plover
- 18 (Charadrius nivosus).

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- 19 The Air Force has determined that the Proposed Action would not result in population-level impacts on
- any biological resource and that marine resources and biological productivity of coastal waters would be
- 21 maintained for long-term commercial, recreational, scientific, and educational purposes. Therefore, the
- 22 Proposed Action would be consistent to the maximum extent practicable with Sections 30230 and
- 23 30231 of the California Coastal Act.

#### 24 3.2.4 ARTICLE 4: MARINE ENVIRONMENT (WATER QUALITY)

#### 25 **3.2.4.1 Policies**

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California Coastal Act Section 30231 – "Biological productivity; water quality" states

The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water supplies and substantial interference with surface water flow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.