DEPARTMENT OF DEFENSE
Department of the Navy
Record of Decision for the U.S. Marine Corps Basing of MV-22 and H-1 Aircraft in Support of III Marine Expeditionary Force Elements in Hawaii

AGENCY: United States Marine Corps, Department of the Navy
COOPERATING AGENCY: Department of the Army (DoA), Department of Defense.
ACTION: Notice of Record of Decision.

SUMMARY: The Department of the Navy (DoN), after carefully weighing the operational and environmental consequences of the proposed action, announces its decision to base and operate up to two Marine Medium Tiltrotor (VMM) squadrons (up to 12 MV-22 Osprey per squadron, for a total of 24 aircraft) and one Marine Light Attack Helicopter (HMLA) squadron (15 AH-1 Cobra attack and 12 UH-1 Huey utility helicopters, for a total of 27 aircraft) in support of III Marine Expeditionary Force (MEF) elements in Hawaii.

In support of the proposed action to base and operate up to two VMM squadrons and one HMLA squadron in Hawaii, the DoN will: (1) implement facilities projects at MCB Hawaii Kaneohe Bay to accommodate the squadrons, to include demolition, new construction, and renovation; (2) conduct aviation training, readiness, and special exercise operations at training facilities and federally obligated state airports statewide; and (3) construct improvements at selected training facilities.

All practical means to avoid or minimize environmental harm from the selected alternative have been adopted.

FOR FURTHER INFORMATION CONTACT: Naval Facilities Engineering Command, Pacific Division, Attn: EV21, MV-22/H-1 EIS Project Manager, 258 Makalapa Drive, Suite 100, Pearl Harbor, HI 96860-3134. Telephone 808-472-1196.

SUPPLEMENTARY INFORMATION: Pursuant to Section 102(2)(c) of the National Environmental Policy Act (NEPA) of 1969, 42 United States Code (U.S.C) §§ 4321-4374, as implemented by the Council on Environmental Quality (CEQ) regulations, 40 Code of Federal Regulations (CFR) Parts 1500-1508, DoN NEPA regulations (32 CFR Part 775), and Marine Corps Order P5090.2A (with Changes 1 and 2) Marine Corps Environmental Compliance and Protection Manual, Chapter 12, the DoN announces its decision to base and operate

up to two Marine Medium Tiltrotor (VMM) squadrons (up to 12 MV-22 Osprey per squadron, for a total of 24 aircraft) and one Marine Light Attack Helicopter (HMLA) squadron (15 AH-1 Cobra attack and 12 UH-1 Huey utility helicopters, for a total of 27 aircraft) in support of III Marine Expeditionary Force (MEF) elements in Hawaii. The tiltrotor MV-22 Osprey aircraft provides the "next generation equipment" offering increased speed, longer range, and greater mission versatility than a helicopter. The MV-22 also satisfies the medium-lift capability needed for assault support transport of combat troops, equipment, and supplies. The HMLA squadron will be relocated from MCB Camp Pendleton to provide rotary-wing light-lift and attack capabilities not currently based in Hawaii and routine training with infantry. The 3d Regiment at MCB Hawaii Kaneohe Bay is the only infantry regiment within the Marine Corps that does not routinely train with rotary-wing light-lift and attack support.

In addition to NEPA and other environmental laws, the DoN considered applicable Executive Orders (EO), including the requirements of EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*; EO 13045, *Environmental Health Risks and Safety Risks to Children*; EO 11990, *Protection of Wetlands*; EO 13514 *Federal Leadership in Environmental, Energy, and Economic Performance*; and EO 13423 *Strengthening Federal Environmental, Energy, and Transportation Management*.

PURPOSE AND NEED: The purpose of the proposed action is to ensure that the Marine Air-Ground Task Force (MAGTF) is capable of supporting the needs of the III MEF operational commander to carry out its legally-mandated Title 10 responsibilities in Hawaii. To accomplish this, a MAGTF must train as it fights, that is, as a single unit combining all four elements of a MAGTF: command element (CE), ground combat element (GCE), aviation combat element (ACE), and logistics combat element (LCE). Readiness can only be assured through frequent, integrated training between the command, logistics, ground, and aviation elements of the MAGTF. Of particular importance is the ability to coordinate aviation and ground elements. This integrated training is required to maximize operational effectiveness and teaches aircrews how to combine operations with other Marine or joint air-ground assets. Operational training for ground troops in Hawaii is currently limited by the lack of specific aviation assets for troop transport and offensive air support.

The need for the proposed action is to correct existing rotary-wing deficiencies of the MAGTF in Hawaii and eliminate reliance on "work-arounds" using, for example, gap deployments to accomplish requisite training.

PUBLIC INVOLVEMENT: The DoN initiated public involvement in the NEPA process with the publication of a Notice of Intent (NOI) in the *Federal Register* (75 FR 47562) on August 6, 2010. A notice to prepare an EIS, announcing public scoping open houses and the 30-day scoping period, was mailed to approximately 165 parties. The announcement was published in five newspapers on four islands (Oahu, Hawaii, Kauai, and Molokai) where training is proposed, published in the State of Hawaii Office of Environmental Quality Control's (OEQC's) *The Environmental Notice and its website*, and posted on the project website (www.mcbh.usmc.mil/mv22h1eis). Interviews with various community stakeholders were conducted shortly after the NOI was published to aid in informing stakeholders about the proposed action and the public scoping open houses, and to identify issues that might be raised at the scoping meetings. Five public scoping open houses were held as follows: Hilo High School on August 24, 2010 (island of Hawaii); Waikoloa Elementary and Middle School on August 25, 2010 (island of Hawaii); King Intermediate School on August 26, 2010 (island of Oahu); Kaunakakai Elementary School on August 28, 2010 (island of Molokai); and Waimanalo Elementary and Intermediate School on August 30, 2010 (island of Oahu). Approximately 123 people attended the open houses, and 32 oral comments were recorded. In response to requests received at the Waimanalo open house, the DoN extended the deadline for submitting scoping comments to September 30, 2010. As of September 30, 2010, a total of 85 written comments were received.

On November 10, 2011, the U.S. Environmental Protection Agency (USEPA) published a Notice of Availability (NOA) of the Draft EIS in the *Federal Register* (76 FR 70118). The DoN distributed the Draft EIS for review and comment to 322 federal, state, and local agencies, elected officials, Native Hawaiian organizations, and other interested parties, including 22 public libraries. The NOA and Draft EIS were also made available via the State of Hawaii OEQC's *The Environmental Notice* and its website, and on the project website. The NOA noted the close of the 45-day public comment period (December 27, 2011); the public open house dates, times, and locations; and that the DoN was integrating the NEPA and National Historic Preservation Act (NHPA) public involvement processes. In addition, the Draft EIS and public open houses were announced in newspapers on the

islands of Kauai, Hawaii, Maui, Molokai, and Oahu. Five open houses were held as follows: Waimea Elementary School on November 30, 2011 (island of Hawaii); Hilo Intermediate School on December 1, 2011 (island of Hawaii); Mililani Middle School on December 6, 2011 (island of Oahu); Waimanalo Elementary and Intermediate School on December 7, 2011 (island of Oahu); and Castle High School on December 8, 2011 (island of Oahu). Approximately 127 people attended the open houses. Seven people gave oral comments that were recorded by staff, and 56 people spoke during the public forum part of the open houses. In total, 175 written comments were received at the open houses, by mail, and by email via the project website. All written comments received were reviewed, considered, and addressed, as appropriate, in the Final EIS.

The NOA for the Final EIS was published in the *Federal Register* (77 FR 34041) on June 8, 2012. The Final EIS was distributed to more than 500 stakeholders for review; made available on the project website and at public libraries; and announced in OEQC's *The Environmental Notice* and its website and in newspapers on five islands. A total of 37 comment letters were received; a summary of comments received during the 30-day waiting period, which ended on July 11, 2012, is presented below.

ALTERNATIVES CONSIDERED: Alternatives were initially screened using operational requirements. Screening criteria for basing included: 1) accessibility to a Department of Defense airfield and seaport supporting global deployment; 2) local training area proximity and airfield requirements; and 3) facility capacity. MCB Hawaii Kaneohe Bay was identified as the only location meeting all three criteria. Within MCB Hawaii Kaneohe Bay, two siting alternatives were identified that could satisfy the operational requirements and could accommodate the basing of the VMM and HMLA squadrons. Alternative A, the selected alternative, accommodates all of the aviation facilities on the southeast side of the runway. This alternative provides space for all existing and projected squadrons and aircraft and allows for phasing of operations during construction to assure uninterrupted operations. Alternative B separates the VMM and HMLA aviation facilities on either side of the runway. Specifically, Alternative B differs from Alternative A in its location of the VMM squadron hangars, apron, support facilities, and plans for Bachelor Enlisted Quarters (BEQ) improvements.

Under either alternative, aviation training would be conducted at available military installations and ranges and at non-military sites in the State of Hawaii. All of the military

facilities, listed below, have been or are currently being used for training by the Marine Corps, Army, and other U.S. DoD services. Pending negotiation of a use agreement, a landing zone (LZ) at the Hawaii Army National Guard (HIARNG) Facility at Puunene on the island of Maui will also be used.

- Marine Corps Training Area Bellows (MCTAB), Waimanalo, island of Oahu.
- U.S. Army training areas at Schofield Barracks East Range (SBER), Kahuku Training Area (KTA), and Kawailoa Training Area (KLOA), island of Oahu.
- Dillingham Military Reservation (DMR), Mokuleia, island of Oahu.
- Pohakuloa Training Area (PTA), island of Hawaii.
- Pacific Missile Range Facility (PMRF), Barking Sands, island of Kauai.
- Molokai Training Support Facility (MTSF), island of Molokai.

With regards to non-military sites, the squadrons are expected to use State of Hawaii airports and helipads that are already routinely used by existing Marine Corps squadrons for flight operations, refueling, and related activities (administrative use). All training exercises will be coordinated, as appropriate, with the State Department of Transportation (DOT) Airports Division.

To support the MV-22 and H-1 aircraft, physical improvements to existing training facilities are proposed at MCTAB, PTA, and MTSF. The projects at MCTAB and PTA include enlarging or paving of LZs considered either substandard or inadequate for use by the MV-22 aircraft, along with associated clearing, grubbing, and grading at some LZs. At MTSF, which may be used by the Marine Wing Support Detachment (MWSD) to support Forward Arming and Refueling Point (FARP) training activities, improvements may include clearing, grubbing, grading, paving, and fencing. MTSF will provide a secured area for the MWSD and equipment. Aircraft will land at the adjacent Molokai Airport. Molokai Airport will also serve as an emergency divert landing area in the event that aircraft carrying unarmed ordnance transiting between Oahu and the island of Hawaii encounter inclement weather or problems with the aircraft.

A third alternative, No Action, presumes that the VMM and HMLA squadrons would not be based in Hawaii, and no facilities would be constructed at MCB Hawaii Kaneohe Bay or any of the other training areas. Under the No Action Alternative, the HMLA squadron proposed for assignment in Hawaii would remain at MCB Camp Pendleton, California, and VMM squadrons proposed for assignment in Hawaii would be based elsewhere.

CEQ regulations (40 CFR 1505.2[b]) require that the environmentally preferable alternative be identified. For NEPA purposes, No Action is considered the environmentally preferable alternative. However, it is noted that No Action does not meet the purpose and need identified herein.

ENVIRONMENTAL IMPACTS: The analysis in the Final EIS and resultant selection of Alternative A in this Record of Decision (ROD) are based on the best available information applicable to the proposed construction (supporting facilities) and operations (training). However, as lessons learned from training evolutions and deployment experiences accrue, the Marine Corps expects to continually update its operational training plans and supplement associated environmental analysis as necessary.

The Final EIS evaluates the potential environmental impacts associated with implementation of both alternatives. Impacts were assessed for the following resources and issues: land use; airspace; air quality; noise; geology, soils, and topography; drainage, hydrology, and water quality; biological resources; cultural resources; safety and environmental health; socioeconomics; infrastructure; and energy use. Potential impacts and mitigation measures are presented in chapters 3 through 7 of the Final EIS. Findings in the Final EIS indicate that most impacts, regardless of the alternative, would be avoided or minimized through implementation of existing management measures and by complying with applicable laws, regulations, orders, best management practices (BMPs), and standard operating procedures (SOPs). Examples include compliance with National Pollutant Discharge Elimination System (NPDES) permit requirements to avoid/minimize construction-related runoff, and compliance with existing base orders and SOPs regarding wildland fire management and response protocols. With respect to the General Conformity Regulations, 40 CFR Parts 51 and 93, pursuant to section 176(c) of the Clean Air Act, emissions from the proposed action are not subject to these regulations since the entire state is in attainment of the National Ambient Air Quality Standards (NAAQS).

Implementation of the selected alternative will comply with all applicable regulations and will be consistent with existing plans, programs, and standards for the resource areas identified in the Final EIS. Potential environmental impacts were shown to be avoidable or mitigable. Potential impacts are disclosed in the Final EIS for aircraft noise, soils, biological resources, cultural resources, and traffic. Mitigation measures are identified for several of these impacts, while other impacts will be addressed through implementation of existing management measures. Direct and cumulative impacts are summarized below, followed by discussion of mitigation. Because the NHPA Section 106 consultations were not completed at the time the Final EIS was published, final agreements regarding adverse effects on historic properties and measures to be implemented to minimize or mitigate those effects are included in the Programmatic Agreement (PA) for this action, executed on July 27, 2012, and are summarized below.

Airspace

The Office of Mauna Kea Management (OMKM), University of Hawaii at Hilo, submitted a comment letter on the Final EIS raising concerns with the impact of additional flight operations on the Mauna Kea observatories' use of lasers and the potential hazards of these lasers to military aviators. The observatories employ aircraft spotters and cease certain operations when aircraft are spotted within parameters defined by Federal Aviation Administration (FAA) regulations. OMKM commented that the increase in aviation activities has potential for substantial adverse impact to its operations and recommended coordination between OMKM and the Marine Corps to deconflict our respective operations to the maximum extent practicable. Coordination with OMKM is already part of the standard operating procedures (SOP) for the Army at PTA; the Marine Corps will follow this currently accepted SOP to resolve OMKM's concerns.

Aircraft Noise

The noise evaluation conducted for the Final EIS conforms to aircraft noise impact analysis requirements of the DoD's Air Installation Compatible Use Zones (AICUZ) Program. The DoD NOISEMAP suite of models was used to develop cumulative aircraft Day-Night Average Sound Levels (DNL) and single aircraft Sound Exposure Levels (SEL). DNL are cumulative sound levels that account for the exposure of all noise events in a 24-hour period. Model results for MCB Hawaii Kaneohe Bay show that DoD's compatibility threshold for noise sensitive land uses would not

be exceeded in the surrounding civilian communities. Projected changes in aircraft noise at selected points of interest (representative noise sensitive areas) under the selected alternative would range from a 1 to 3 dB increase in DNL compared to baseline, and from a 0 to 1 dB increase in DNL compared to the No Action Alternative. Fixed-wing aircraft, which would be present regardless of the proposed action, would continue to be the primary contributors to noise in the area. Areas on land incurring noise levels of 65 dB DNL or greater would be limited to the air station and immediate surroundings on MCB Hawaii Kaneohe Bay, Coconut Island (a marine biology laboratory), and the tip of Kealohi Point (a recreational area). Noise sensitive receptors, such as homes, schools, and hospitals, would not be exposed to DNL greater than or equal to 65 dB.

A comment received from a local resident regarding the figure showing the flight tracks for helicopters around MCB Hawaii Kaneohe Bay led to the discovery that the noise modeling for MCB Hawaii Kaneohe Bay, as described in the Final EIS, did not reflect current Course Rules governing entry (arrival) and departure procedures for helicopters using the base, as defined in the Marine Corps Air Station Air Operations Manual. The noise modeling assumed an entry route along the south side of Nuupia Ponds, whereas the route is along the north side (MCB Hawaii Kaneohe Bay side) of the ponds. See attached maps from the Air Operations Manual showing helicopter VFR (visual flight rules) entries and departures. The Fort Hase entry and departure routes remain north of Nuupia Ponds. DoN has evaluated noise impacts associated with use of the Fort Hase entry and departure routes to determine whether the noise impacts vary from or exceed what was analyzed in the Final EIS. DoN’s findings are that the noise impacts associated with use of the Fort Hase entry and departure routes are within the range of impacts analyzed in the Final EIS and, in fact, there is reduced impact on communities located south of the base. As a specific example, noise levels outside the main gate (Puu Papaa) – a point of interest noted in the letter from the local resident – will be exposed to approximately 3 dB lower DNL than what was modeled in the Final EIS.

At other training areas, the projected DNL greater than or equal to 65 dB DNL from aircraft activity in 2018 (the year in which all aircraft associated with the proposed action will be in operation) would remain confined within DoD training area boundaries or would be compatible with affected land use.

Soils

Construction activities associated with the selected alternative will be in compliance with project-specific NPDES permit programs consisting of best management practices to control surface storm water runoff, prevent erosion, and provide sediment control. As stated in the Final EIS, the Marine Corps will incorporate Low Impact Design (LID) measures as practicable into project designs to control or otherwise reduce runoff before it enters piped or lined channels for off-site discharge. Project designs may include surface and subsurface retention facilities, enhanced infiltration by use of vegetated channels and swales, as well as bio-retention areas and/or water quality units. Such measures are intended to maintain storm water discharge to pre-development hydrology conditions to the maximum extent technically feasible. Therefore, substantive soil erosion impacts from construction activities at MCB Hawaii Kaneohe Bay and the other training areas are not anticipated.

Operational activities present the possibility of soil erosion at unpaved landing zones. The new MV-22 aircraft will introduce greater prop-rotor downwash than that of existing aircraft. Based on prop-rotor studies, the potential area of effect is defined as an area encompassed by a circle with a radius of 350 feet (107 meters) measured from the aircraft’s landing point. Unpaved LZs are located at the Army’s Oahu training areas and at PTA. Erosion from downwash is more likely at Oahu training areas, specifically Schofield Barracks East Range (SBER) and certain parts of Kawailoa Training Area (KLOA), where soils have relatively high erosion potential. Erosion due to MV-22 downwash is less likely at PTA, where soils are mainly rocky and poorly developed. As noted in the discussion of cultural resources below, landing zones will be monitored for erosion and appropriate measures to stabilize or restore sites will be implemented, as appropriate.

Biological Resources

Construction activities associated with either of the alternatives would not occur in the vicinity of Endangered Species Act (ESA)-listed plant species, critical habitat, wetlands, offshore endemic seagrass, or coral reefs. For this reason, no impact on ESA-listed species or other resources listed here is anticipated from construction activities at MCB Hawaii Kaneohe Bay or the other training areas. Operational activities could occur in areas frequented by ESA-listed terrestrial and marine faunal species and Migratory Bird Treaty

Act (MBTA)-listed birds, since such species are found at MCB Hawaii Kaneohe Bay and the other training areas.

Potential impacts on biological resources will be avoided or minimized with the continued implementation of the Integrated Natural Resources Management Plans (INRMPs) for MCBH facilities, the Army's training areas on Oahu and at PTA, and Navy facilities at PMRF, as well as other directives to protect ESA- and MBTA-listed species. During training, the squadrons will follow measures as required by regulations, Biological Opinions, and SOPs to avoid impacts to listed species, minimize Bird Aircraft Strike Hazard (BASH) risk, prevent the spread of invasive species between training areas, and prevent wildfires. In addition, exhaust deflectors on MV-22 aircraft will reduce the risk of fire at unpaved LZs. Other existing operational measures are available to further minimize the already remote risk of fire, such as avoiding bushes or brush directly beneath the aircraft and limiting the duration of aircraft presence at unpaved LZs.

With respect to ESA-listed species, DoN conducted informal consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the ESA. USFWS concurred with the DoN determination of "no effect" for the endangered plant species *Stenogyne angustifolia* (narrowleaf stenogyne) at PTA and the endangered bird species *Branta sandvicensis* (nene; Hawaiian goose), also at PTA. USFWS concurred with the DoN determination of "may affect, but not likely to adversely affect" for the endangered *Lasiurus cinereus semotus* (Hawaiian hoary bat)at the Army's Oahu training areas and at PTA. DoN has agreed to follow existing conservation measures for the Hawaiian hoary bat outlined in the applicable Biological Opinions for Army training areas on Oahu and at PTA—for example, woody vegetation greater than 15 feet in height will not be cleared during pupping season, June 1 to September 15.

In addition, because the Army is proposing to reinitiate Section 7 formal consultation for PTA, future Marine Corps actions will be subject to implementation of any revised conservation measures for the nene at the conclusion of that consultation.

In a letter dated July 10, 2012, the National Marine Fisheries Service (NMFS), Pacific Islands Regional Office, commented on the Final EIS and recommended that (1) the EIS be revised to include information on potential impacts to Hawaiian monk seals *(Monachus schauinslandi*) at Kalaupapa, (2) DoN contact NMFS to discuss initiation of ESA Section 7 consultation for this

action, and (3) DoN contact NMFS to discuss a Marine Mammal Protection Act Letter of Authorization (LOA) for potential Level B Harassment of the Hawaiian monk seal.

NMFS specifically expressed concern about the increase in sound levels from the current baseline, considering Hawaiian monk seals use Iliopii Beach as a pupping area and Hoolehua Beach as a haulout site. As discussed below under Cultural Resources, the frequency of training at Kalaupapa Airport would be the same as that analyzed under the No Action alternative (112 total operations per year), but would allow for limited training by the H-1 squadron in exchange for fewer CH-53E operations. Noise impacts from this mix of aircraft are expected to be less than impacts from the noisier CH-53E aircraft that currently train at Kalaupapa Airport.

The Final EIS disclosed the presence of Hawaiian monk seals at Kalaupapa throughout the year and especially during spring and summer. The Final EIS concluded that current aviation operations, which have been occurring for many years, have had no significant impacts on the species. Since aircraft operations will not increase beyond the current baseline, and the mix of aircraft should reduce the existing noise profile, the proposed action will not affect the Hawaiian Monk Seal. The Marine Corps has notified NMFS of this determination.

Cultural Resources

Construction activities associated with the selected alternative would affect cultural resources at MCB Hawaii Kaneohe Bay and have the potential to affect cultural resources in training areas. In accordance with Section 106 of the NHPA, 16 U.S.C. part 470f, and its implementing regulations, 36 CFR part 800, the Marine Corps has made a determination of adverse effect on historic properties as a result of the proposed undertaking. Historic properties associated with the selected alternative include historic buildings, the Kaneohe Naval Station (NAS) National Historic Landmark (NHL), buildings within two historic districts at MCB Hawaii Kaneohe Bay, the Kalaupapa Leprosy Settlement NHL, and archaeological and traditional cultural resources within or near LZs on the islands of Oahu, Hawaii, and Kauai.

A portion of the Kaneohe NAS NHL may be adversely affected if proposed avoidance or minimization efforts to preserve a bomb crater are not successful. The bomb crater, a remnant from the December 7th 1941 attack on the NAS, is a contributor to the

Kaneohe NAS NHL. The Kaneohe NAS NHL was designated on May 28, 1987. It consists of Facilities 1 through 5 (seaplane ramps), Facility 101 (Hangar 1), the seaplane parking area to the east of Hangar 1, and the seaplane parking area between the hangars and Kaneohe Bay. All of these facilities are still in existence. The proposed action requires repaving and repair of the parking apron within which the bomb crater lies. Several potential preservation measures have been proposed in the PA; however, if those measures are unfeasible or unsuccessful, the PA includes measures for mitigation of adverse effects.

Adverse effects may occur at archaeological site 4933, a subsurface archaeological deposit adjacent to the Marine Aviation Logistics Squadron 24 (MALS-24) construction project that is part of this undertaking. Because the horizontal extent of the deposit is unknown, it is possible that the site extends into the project area and may be impacted by construction.

Up to seven historic buildings would be adversely affected through demolition. These include six Bachelor Enlisted Quarters (BEQs) and an aviation administration building (Building 301), which are contributors to the Historic Administration District and the Historic Aviation District, respectively. Therefore, the historic districts would be adversely affected.

The potential for encountering disturbed human remains in secondary context (sand fill) at MCB Hawaii Kaneohe Bay exists for construction activities on or near historic facilities. Sand likely mined from the Mokapu Burial Area was used as construction fill material from the 1930s into the 1960s.

At PTA and MTSF, construction activities associated with the proposed action would not affect historic properties or other identified cultural resources. At MCTAB, subsurface cultural deposits could be affected should construction activities involve ground disturbance greater than 12 inches (30 centimeters) deep.

Operational activities associated with the proposed action at the other training areas would have no adverse effects on historic properties eligible for inclusion in the NRHP with the avoidance, minimization, and mitigation measures developed through NHPA Section 106 consultation and documented in the Programmatic Agreement (PA). The areas of potential effect (APEs) of the LZs, drop zones (DZs), and other facilities at these training areas have not been fully surveyed for archaeological resources. For this reason, the Marine Corps has

prepared a list of LZs, DZs, and other facilities that require additional archaeological and traditional cultural property surveys to be completed. Should these surveys identify cultural resources, the PA establishes a process for additional consultations. Surveys and consultations will need to be completed for each of the LZs prior to their use by MV-22 aircraft. This list of facilities needing additional surveys was developed as a result of the NHPA Section 106 consultation process and is included in the PA.

For Kalaupapa Airport, which lies within the Kalaupapa Leprosy Settlement NHL, the DoN expanded the APE from the 350-foot buffer used for other airports and landing zones to include the entire NHL boundary (as shown in Attachment 11 of the PA). The DoN also acknowledges statements made by the National Park Service (NPS) and Native Hawaiian organizations that the NHL includes many traditional cultural properties (TCPs) and, in fact, that the NHL as a whole is being evaluated as a TCP as part of NPS's General Management Plan. Due to concerns about potential impacts of MV-22 rotor downwash on archaeological resources located adjacent to Kalaupapa Airport, the Marine Corps modified the proposed action in the Final EIS to remove MV-22 use of Kalaupapa Airport for training. Subsequently, as a result of NHPA Section 106 consultations, the proposed action was further modified to limit use of Kalaupapa Airport for H-1 squadron training to the No Action number of 112 annual operations (baseline operations reflected use by three CH-53D squadrons, calculated as 260 operations per year; the No Action alternative reflects use by two CH-53E squadrons at 112 operations per year). Under the proposed action, the CH-53E operations will decrease to accommodate a limited number of H-1 operations for pilots to become familiar with conditions at the airport. Because the number of operations will not increase from the current baseline and, in fact, the noise levels are likely to decrease given that the H-1 is a quieter aircraft than the CH-53E, the proposed action will have no additional impacts or effects on the NHL or its contributing elements compared to the existing baseline.

Roads and Traffic

Vehicular traffic volume would increase with the approximately 1,000 military personnel, 22 civilian employees, and 1,100 military family members anticipated under the proposed action. This represents an estimated 16 percent increase in the existing population at MCB Hawaii Kaneohe Bay. The new military and dependent populations would increase demand for on-base and off-

base housing. Off-base housing demand for families and bachelor Marines would increase over time by an estimated 0.5 percent island wide and 3.2 percent for Windward Oahu. Impacts upon public roadways entering and exiting the base would not be significant since those existing roadways have adequate capacity. Roadways in nearby neighborhoods would see a minimal increase in traffic since most of the Marines living off-base would be renting already existing housing units.

Cumulative Impacts

The proposed action, as implemented through the selected alternative, when considered with other past, present, and reasonably foreseeable future actions, would not have significant cumulative impacts to resources. The geographic scope of this cumulative analysis includes MCB Hawaii Kaneohe Bay as well as other training areas across the state of Hawaii. The following summaries highlight the results of the cumulative impacts analysis.

Airspace. Increased use of airspace would occur due to operations by the new squadrons and other users. Compared to baseline (2009), total operations at MCB Hawaii Kaneohe Bay for all users (cumulative) under the selected alternative would be 29 percent more than No Action. At the other training areas, total operations for all users (cumulative) under the selected alternative would be 10 percent more than the No Action alternative. The cumulative increase in airspace use will require more coordination between FAA and military airspace managers. Application of established FAA and DoD airspace management and use procedures will continue to minimize airspace conflicts.

Air Quality. The Final EIS analysis found that cumulative emissions would not result in exceedance of National or State Ambient Air Quality Standards. The EIS also estimated that greenhouse gas (GHG) emissions from primary operational sources associated with the proposed action would represent approximately 0.0015 percent of annual U.S. GHGs and, therefore, would not substantially contribute to global climate change.

Noise. Noise is analyzed cumulatively, taking into account current and foreseeable future activities by others in the same region of influence (ROI). The cumulative analysis of aircraft noise at MCB Hawaii Kaneohe Bay disclosed that fixed wing aircraft would continue to be the dominant contributors (approximately 90%) to DNL noise contours at the base and its

environs. Cumulative noise impacts were analyzed at MCTAB, SBER, KLOA, DMER, and Kalaupapa Airport due to the proximity of noise sensitive receptors. Noise from MV-22 and H-1 aircraft, combined with noise from other military aircraft conducting operations, would not be incompatible with noise sensitive receptors near these training areas.

Soils. With increased frequency of training by all users, cumulative erosion impacts due to aircraft downwash are possible at unpaved LZs at SBER and parts of KLOA, where soils have relatively high erosion potential. As noted in the discussion of impacts on soils (page 9 of this ROD), LZs will be monitored and, if erosion is observed, appropriate measures to stabilize and restore the LZs will be implemented.

Drainage, Hydrology, and Water Quality. Development of new facilities at MCB Hawaii Kaneohe Bay associated with the selected alternative and other actions would have a potential cumulative effect of adding an estimated 33.4 acres (13.5 hectares) of impervious surfaces. LID design will be implemented to the maximum extent feasible to maintain storm water discharge to pre-development conditions.

Biological Resources. Cumulative impacts have been identified with regard to ESA-listed animal species, MBTA-listed bird species, spread of invasive species, and risk of wildland fires. Due to the increased frequency of aviation operations by all users, there is a potential for cumulative impacts on *Lasiurus cinereus semotus* (Hawaiian hoary bat) at the Army's Oahu training areas and at PTA, and on *Branta sandwicensis* (nene; Hawaiian goose) at PTA. With increased operations by all users, there is an increased potential for aircraft strikes involving certain MBTA- and ESA-listed birds, particularly those that frequent airfields. Cumulative BASH risks will be minimized through continued implementation of existing BASH control/prevention programs. At training areas without BASH programs, BASH risks will be managed through compliance with aviation SOPs. Due to employment of these programs and SOPs, the cumulative effects of the proposed action on MBTA- and ESA-listed birds is considered to be minor.

Regarding the spread of invasive species, there is a potential for cumulative impacts, including the inadvertent introduction of species from one island to another, due to increased military training frequency. Existing Marine Corps, Army, and Navy management measures address invasive species and serve to reduce the cumulative risk. Likewise, the increased frequency of

military training operations contributes to the potential for cumulative wildland fire impacts, particularly in areas with high risk factors, such as drought conditions at PTA. All aviation units are subject to existing wildland fire management and response protocols for training areas and ranges, including installation-specific requirements. Accordingly, the potential for cumulative wildland fire impacts is considered minor.

Cultural Resources. Future projects near the MCB Hawaii Kaneohe Bay flight line may adversely affect historic properties, including NRHP eligible buildings located within the existing “Clear Zone" that will be proposed for demolition. Cumulative impacts at MCB Hawaii Kaneohe Bay are also possible during ground disturbance associated with construction of all planned projects, since there is a potential to encounter human skeletal remains in secondary context (sand fill). In addition, there is a potential for cumulative construction-related impacts at MCTAB, where subsurface archaeological deposits have been identified within the APE of three LZs. Cumulative impacts during operations at most of the LZs and other training facilities are unlikely, as no loss of historic resources is anticipated in these areas due to aviation training. Similarly, because operations at Kalaupapa Airport under the proposed action will not exceed the existing baseline, the proposed action will not contribute to cumulative effects on the NHL. Any future unknown impacts will be managed pursuant to the NHPA and are therefore not considered signifcant.

Socioeconomics. The socioeconomic analysis identified cumulative impacts associated with basing of the new squadrons at MCB Hawaii Kaneohe Bay. Cumulative impacts of construction associated with the selected alternative and other actions are possible if the projects require more labor than available locally, leading to labor in-migration and/or pressure for wage hikes, which could affect the housing market and the construction industry (possible strikes, higher construction costs, construction delays). The analysis considered the Honolulu rail system, sewer system improvements, and other large infrastructure projects. The study estimated that projects supporting the new squadrons would contribute less than two percent of the estimated total statewide construction job count, and that short-term job growth would be too small to cumulatively affect employment and wages at the island or state level. Regarding impacts on demand for housing and community facilities, the increase in population at MCB Hawaii Kaneohe Bay would occur over approximately five years and would be dispersed to several Oahu communities, thereby lessening competition for

housing and public facilities. In addition, the EIS noted that population in the region surrounding MCB Hawaii Kaneohe Bay has been declining.

Roads and Traffic. The traffic study conducted as part of the EIS was a cumulative analysis, combining other initiatives with the proposed action. On-base traffic impacts and mitigation were identified in the study. No cumulative off-base traffic impacts were identified because roadways surrounding the base have available capacity.

Energy Use. Through implementation of federal and Marine Corps mandates, as well as MCB Hawaii Kaneohe Bay programs and initiatives by the local utility and government entities, cumulative impacts on the island's energy use would be reduced in the foreseeable future. One issue not addressed by these directives is the cumulative increase in tactical petroleum use by the Marine Corps and other services associated with increased frequency of aviation training operations. This cumulative impact, although potentially reduced by future use of aviation bio-fuels, is identified as an irreversible commitment of a nonrenewable resource.

MITIGATION MEASURES: Mitigation measures have been identified to reduce the impacts from implementing the proposed action on soils, cultural resources, and traffic. The Marine Corps will be responsible for implementing mitigation measures. It is noted that no additional mitigation is required as a result of the ESA Section 7 process, which stipulated compliance with existing conservation measures.

Soils

In conjunction with the range managers of the various ranges and training areas being used for training of the new squadrons, the operators will monitor conditions at selected LZs with the highest risk of soil erosion. Should field observations verify that erosion is occurring, the Marine Corps will work with the appropriate range manager to implement repairs or other maintenance actions (e.g., use of other LZs with less erosion potential and/or improvements to LZs to minimize erosion).

Cultural Resources

Measures to avoid, minimize, or mitigate adverse impacts on cultural resources, specifically historic properties as defined

under the NHPA, have been identified through the NHPA Section 106 consultation process and are documented in the PA. Measures to avoid, minimize, or mitigate impacts on archaeological resources at MCB Hawaii Kaneohe Bay and MCTAB include archaeological subsurface testing prior to construction and archaeological monitoring of ground disturbing activities in areas with potential for buried cultural deposits, including monitoring of excavations at MCB Hawaii Kaneohe Bay when sand fill is encountered. In addition, intermittent monitoring will be conducted at landing zones that have NRHP-eligible sites within the APE to ensure that subsurface deposits are not affected by rotor downwash.

Not all of the landing zones proposed for use at PTA have been subject to archaeological or traditional cultural property surveys; accordingly, the effects to cultural resources at those LZs are unknown. The PA provides a process for completing such surveys, in consultation with the State Historic Preservation Officer (SHPO) and Native Hawaiian Organizations (NHOs), in advance of use of those LZs by MV-22 aircraft. If the surveys identify cultural resources within the LZs, avoidance will be the first option (reconfiguration of the LZ to avoid the resource). If the resource cannot be avoided, further consultation will be conducted regarding resolution of adverse effects, and any additional mitigation measures will be documented in a Memorandum of Agreement.

Before implementing projects at MCB Hawaii Kaneohe Bay, the Marine Corps will prepare an Area Development Plan (ADP) focused on the BEQ area. The plan will analyze options for the new BEQs, parking, and connecting roadways to reduce the need for parking infrastructure adjacent to the BEQs. The plan will include at least one scheme to maximize retention of existing buildings. During preparation of the ADP, the Marine Corps will follow a design review process, working with design review partners to select the scheme to be carried forward. If retention of one or more of the BEQs is selected, the Final ADP will include a future project for reuse.

In addition, a design review process will be conducted for the new MAG-24 headquarters building and renovated Hangar 101.

Prior to repaving the apron adjacent to Hangar 101, feasible alternatives will be explored to avoid or stabilize the bomb crater, providing that the apron is safe and serves its intended purpose. If preservation of the bomb crater is not possible, its

loss will be mitigated through interpretive display and, if feasible, interpretive signage.

Additional mitigation for archaeological impacts at MCB Hawaii Kaneohe Bay includes an ethnohistoric study emphasizing the pre-military history of the Mokapu Peninsula. The study will result in a published volume and a web page to disseminate information to the public.

Measures to mitigate impacts to historic buildings and districts at MCB Hawaii Kaneohe Bay include development and installation of signage and commemorative plaques to be placed on the interior and exterior of key buildings within the historic district, as well as development and publication of pamphlets about the historic significance of MCB Hawaii Kaneohe Bay to provide information to base personnel and visitors about the history of the area. Interpretive displays will be installed in a new air terminal building. Photodocumentation used for the development of interpretive signage will be prepared to archival standards, and the originals will be submitted to an appropriate repository for curation.

Finally, in recognition of potential cumulative effects on historic properties resulting from the proposed action in conjunction with other DoN, DoD, and federal agency actions in the State of Hawaii, the Marine Corps will prepare a set of "Best Practices" for consultation, based upon lessons that may have been learned during this consultation. The Marine Corps will incorporate that information into the MCB Hawaii Integrated Cultural Resources Management Plan. The Marine Corps also commits to working with the other military services and any other interested federal agencies to develop a system to notify the SHPO, NHOs, other interested parties, and the public about new or in-progress DoD actions in the State of Hawaii with the potential to affect historic properties.

Roads and Traffic

The selected alternative will not have significant off-base traffic impacts at any of the locations where the alternative will be implemented. Potential traffic impacts at MCB Hawaii Kaneohe Bay will be mitigated to acceptable levels with improvements to entry gate procedures and three intersections (eastbound Mokapu Road approach to G Street; southbound Reed Road approach at Mokapu Road; southbound approach at Selden Street and Craig Avenue) within the base.

AGENCY COORDINATION AND CONSULTATION: The DoN is the lead agency for the Marine Corps' proposed action with respect to the NEPA process. Because the proposed action would use land currently owned or controlled by the DoA, the DoA is a cooperating agency for this NEPA EIS.

In addition to following the NEPA process, the DoN and Marine Corps coordinated and consulted with federal and state agencies in accordance with ESA, NHPA, the Marine Mammal Protection Act (MMPA), and the Coastal Zone Management Act (CZMA), as summarized below.

USFWS: ESA Section 7 Informal Consultation

The DoN initiated and concluded informal consultation with the USFWS in accordance with Section 7 of the ESA. In its letter, dated November 14, 2011, documenting this action, the DoN provided a Biological Evaluation (BE) along with a determination of "no effect" on the endangered plant species *Stenogyne angustifolia* (narrowleaf stenogyne) and the endangered bird species *Branta sandvicensis* (nene; Hawaiian goose), and a determination of "may affect, but not likely to adversely affect" on the endangered *Lasiurus cinereus semotus* (Hawaiian hoary bat). During the period of December 20, 2011 to February 13, 2012, the USFWS requested additional information on species not considered in the BE. This information was shared via telephone and email communications during the same period. As a result, the DoN changed its determination for the nene from "no effect" to "may affect, but not likely to adversely affect" and requested the USFWS' concurrence via telephone and email on February 13, 2012. The DoN's change in determination for the nene is based on minimization and avoidance measures stated in its November 14, 2011 consultation letter. On February 17, 2012, the USFWS issued its letter concurring with the DoN's determinations resulting from discussions through February 13, 2012, thereby completing the consultation process.

State Historic Preservation Officer (SHPO) and Advisory Council on Historic Preservation (ACHP): NHPA Section 106 Consultation

In accordance with 36 CFR Part 800 of the NHPA, the Marine Corps conducted Section 106 consultations between 2010 and 2012. The Marine Corps consulted with the Hawaii SHPO, the ACHP, the National Park Service, the Secretary of the Interior, Native Hawaiian organizations (NHOs), and other interested parties to develop a Programmatic Agreement (PA).

The Marine Corps initiated consultation in a letter dated November 8, 2010, which stated that the Marine Corps had determined that the proposed undertaking would result in an adverse effect to historic properties. Initial notification of the undertaking was distributed to 22 agencies, Native Hawaiian organizations, and other interested parties. The Marine Corps expanded the APE in 2011 and notified 67 agencies, NHOs, and other interested parties of this revision in a letter dated December 15, 2011. Forty seven (47) of the agencies, NHOs, and other interested parties notified participated in the consultation. Fifty-four (54) Section 106 consultation meetings were held with consulting parties through July 2012, and Section 106 consultation meetings were held on the islands of Oahu, Hawaii, and Molokai in November and December of 2011. The meetings on the islands of Oahu and Hawaii were conducted during Draft EIS public open houses. Additional Section 106 consultation meetings were held on the island of Molokai in March 2012 and on the islands of Hawaii and Kauai in June 2012. Through the Section 106 consultation process, measures to avoid, minimize, and mitigate adverse effects to historic properties were consulted upon, and concurrence was documented in the PA, which was executed on July 27, 2012.

Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NMFS), Pacific Islands Regional Office: ESA Section 7 and MMPA

In a letter dated July 10, 2012, NMFS provided comments regarding how aviation training may affect the endangered Hawaiian monk seal at Kalaupapa on the island of Molokai. The DoN conducted two conference calls with NMFS to make them aware of the change in the proposed action at Kalaupapa Airport; specifically, that the Marine Corps had decided not to increase the number of operations above the existing baseline (112 operations per year) at Kalaupapa Airport as part of the proposed action. As discussed on page 11 of the ROD above, given no increase in operations at Kalaupapa Airport, the proposed action has no potential to effect the Hawaiian Monk Seal.

State of Hawaii Office of Planning, Coastal Zone Management (CZM) Program: Federal CZM Consistency Determination

In a letter dated March 6, 2012, the State of Hawaii Office of Planning concurred with the DoN’s determination that the proposed activities are consistent to the maximum extent practicable with the enforceable policies of the Hawaii CZM Program.

RESPONSE TO COMMENTS ON THE FINAL EIS: The DoN reviewed and considered all comments that were received during the 30-day waiting period, initiated with publication of the Final EIS NOA in the *Federal Register* (77 FR 34041) on June 8, 2012, and ending on July 11, 2012. Letters or emails were received from three federal agencies, one state legislator, three state agencies, four county agencies, three non-governmental organizations, one utility company, and 22 individuals, for a total of 37 comment letters. Following is a summary of the comments received; many of which repeated topics or statements received on the Draft EIS.

- Twenty-one commenters expressed concern about aircraft noise impacts. Twelve were from windward Oahu communities, including the state legislator.
- Ten commenters were concerned about aircraft safety, particularly the MV-22.
- Six commenters voiced opposition to military activities and expansion.
- Five commenters were concerned about impacts to wildlife.
- Five commenters raised issues about cultural impacts.
- Three commenters questioned the alternatives analysis.
- Three individuals stated their support of the proposed action.
- Other issues raised (1 or 2 comments each) included: illegal occupation of Hawaii by the military, hazardous materials contamination, air quality, light and electromagnetic radiation emissions, use of airspace, impacts on cost and availability of rental housing, socioeconomic impacts, the NEPA review process, viewplanes, unexploded ordnance, land use, and low impact design.

Following are more details about comments received from agencies, NGOs, and individuals:

- Environmental Protection Agency (EPA), Region IX: EPA appreciated changes made in the Final EIS that were responsive to their comments regarding energy use, greenhouse gas emissions, recycling/salvaging of demolition waste, and implementation of LID elements. MCB Hawaii Kaneohe Bay has continuing programs for energy conservation, water conservation, and waste diversion. EPA acknowledged receiving correspondence from community members expressing concern about aircraft noise impacts and recognized that the projected noise exposure is widely considered compatible with residential use. EPA encouraged the Marine Corps to consider a lower screening level for school noise exposure, to use the noise concerns to further

engage the community, and to consider noise monitoring and attenuation measures.

- Department of Commerce, National Oceanic and Atmospheric Administration, NMFS, Pacific Islands Regional Office: NMFS provided comments regarding how aviation training may affect the endangered Hawaiian monk seal at Kalaupapa on the island of Molokai. NMFS cited its intent to revise critical habitat for the monk seal, including a proposal to designate the shoreline area near Kalaupapa Airport as monk seal critical habitat. As discussed above, given no increase in operations at Kalaupapa Airport, the proposed action has no potential to effect the Hawaiian Monk Seal.
- Kalaupapa Leprosy Settlement National Historic Park: The Park offered comments on various resources/issues, including aircraft noise and safety, terrestrial and marine wildlife, cultural resources (traditional cultural properties, historic buildings, archaeological sites), training frequency, and views. The Park staff requested that flight activity be conducted only from November to March when Hawaiian monk seals are less abundant and pupping activity is minimal. In addition, the Park staff requested financial support to monitor monk seal activity at Hoolehua Beach off the eastern end of the runway for at least two years before and at least three years after the change in flight activities. As noted above, however, the proposed action will not increase operations at Kalaupapa Airport and, in fact, a reduced noise profile is anticipated due to the mix of aircraft, no mitigation measures are required.
- The Office of Mauna Kea Management (OMKM), University of Hawaii at Hilo: OMKM raised several issues, including aircraft noise impacts on noise sensitive communities, impacts from aviation lights and electromagnetic radiation emissions, air quality impacts from aircraft emissions, and impacts of lasers used during astronomical observations. The latter issue, discussed above in the Airspace section, relates to both safety impacts to Marine aviators and impacts to observatory operations. The Marine Corps agrees to coordinate its flight activities with OMKM, as per current PTA range standard operation procedures, to avoid these impacts.
- Of the eight letters received from state/county agencies and the public utility, seven had either no comments or no objections.
- The three NGO commentors included the Kalaupapa National Historic Park Advisory Commission, Kokokahi Community

Association, and Hawaii Peace and Justice. The Kalaupapa organization stated that they do not support any increase in aviation operations at Kalaupapa Airport, but that they are willing to allow current operations. The Kokokahi organization was concerned about aircraft noise and safety. Hawaii Peace and Justice submitted a letter and a petition against the proposed action, expressing concern about aircraft noise and safety, children's health and education, military activities/expansion, impacts on natural and cultural resources, and impacts on viewplanes.

- Of the 22 individuals submitting comments, 14 identified aircraft noise as an issue (11 from windward Oahu, 1 from Honolulu, 1 from the island of Molokai, and 1 from Volcano on the island of Hawaii).

Responses to a number of these comments are included in the Environmental Impacts and/or Regulatory Consultations section of this ROD. No additional mitigation measures are required as a result of comments on the Final EIS.

CONCLUSION: After careful consideration of the purpose and need for the proposed action, the analysis contained in the Final EIS, and comments received on the Draft and Final EIS from federal, state, and local agencies, non-governmental organizations, and individual members of the public, I have decided to proceed with the selected alternative to base and operate up to two VMM squadrons and one HMLA squadron at MCB Hawaii Kaneohe Bay in a manner that accommodates aviation facilities on the southeast side of the existing runway rather than having them divided by the runway. The selected alternative allows the VMM and HMLA squadrons to conduct aviation training, readiness, and special exercise operations at existing training facilities statewide, and allows for improvements at selected training facilities.

1 AUG '12
Date

Joseph Ludovici
Principal Deputy Assistant Secretary of the Navy
(Energy, Installations and Environment)(Acting)